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The American College of Dentists was established to promote the ideals of the dental profession; to advance the standards of efficiency of dentistry; to stimulate graduate study and effort by dentists; to confer Fellowship in recognition of meritorious achievement, especially in dental science, art, education and literature; and to improve public understanding and appreciation of oral health service.

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Continuing Educational Efforts and Opportunities for Professional Advancement

Panel Discussion*

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The Philosophy and Basic Principles To Be Considered

DR. STRIFE

IT IS A PLEASURE and honor to address you as a member of this panel. A quotation from Dr. LeRoy Main's first report as Chairman of this Committee comes to mind as particularly fitting for our theme: "He who graduated yesterday and stops learning today, is uneducated tomorrow." This explains truly the need for a philosophy in our profession for sharing knowledge. Especially is this true today in our swiftly changing world, where new methods and techniques are being introduced more rapidly than even before, and it becomes more and more necessary that our profession adopt an ethical plan for sharing our knowledge for the benefit of our patients and colleagues. All

* Held Sunday November 3, 1957, during the Convocation of the College, Miami Beach, Florida.

dentists and particularly Fellows of the College are expected to allocate a reasonable portion of time for the purpose of improving the skill of others. Each member of the College should evidence a readiness at all times to give of his time and talents and to share with his dental associates any special knowledge, skill and experience which may be beneficial to them.

Every dentist is obligated to keep himself in good physical condition and be mentally alert to the changing world about him. Professionally, he should keep his office equipped with modern, efficient units and instruments. He should surround himself with intelligent, well trained assistants, and most important of all, he should continue his own education. If successful with this philosophy, he can render more skillful service to his patients and serve more patients, thus rendering a health service to his community.

The graduate dentist also has the obligation to contribute his skill, knowledge and experience to society in those fields in which his qualifications entitle him to speak with professional competence. He should be a leader in all efforts towards the improvement of the dental health of his community. The lack of knowledge among our patients in the various areas of dentistry is astounding. It is just as necessary to educate society to the health benefits of dentistry and to the aesthetic possibilities as it is to educate ourselves. This can and should be done by presentations given by members of organized dentistry to schools, clubs, P.T.A. associations and directly to patients.

A professional man is judged in his community by his living standard, his professional ethics, his skill and his willingness to help and serve both his community and his profession.

Whenever basic principles are considered, there must be some definition of procedure, regulation of conduct and laws to govern the authorized organizations under whose auspices the programs, of necessity, must be conducted.

1. Any educational program should be conducted under proper and ethical auspices. By auspices is meant responsibility and proper auspices suggests that the full responsibility of a course, its organization, planning, financing and proper conduct, rest upon the organization or institution under whose auspices a course is offered. Thus, an individual cannot assume auspices, although he may function as the person who carries out the will and intent of the authorized organizations who become the auspices.

2. *Purposes of Courses or Studies.* All continuing educational efforts—courses, seminars, study clubs, etc.—should have as their initial objectives, the advancement of the profession and better service to the public. Personal aggrandizement and/or financial return must not be initial incentives or sustaining influences. Efforts by individuals or groups having sales promotion of a product as an objective should be condemned.

3. *Authenticity of Material.* In all educational endeavors, since their objective deals with patient well-being, the authenticity of the material or studies should be above reproach. If this authenticity has not been established, it should be so stated. Truthfulness in all our relations must prevail.

4. *Organizational Arrangements.* The extent of detailed organizational arrangements in the various educational categories will vary greatly. In some instances a very simple agreement on procedures will suffice. In others, a more elaborate outline will be necessary. The extent of such arrangements should be the responsibility of those under whose auspices the projects come. In all cases the organizational arrangements should be clear cut.

Courses of instruction, seminars and study clubs should not be identified by the name of a person, such as the person giving the course or organizing the club, or in honor of a person, but rather with a descriptive term that identifies the course, as "Gold Foil Study Club of Omaha, Nebraska."

Where a course is offered by an institution or organization, it should be referred to as "The Course in Oral Surgery at X University under the direction of Dr. W. A. Jones," rather than "Dr. W. A. Jones' course in Oral Surgery at X University."

The principles of Ethics of the American Dental Association forbid the use of one's name to instruments. The same should apply to courses of instruction, study clubs and seminars.

5. *Financial Arrangements.* Any effort having for its objective the furthering of knowledge in a subject or the better understanding of principles involved, should be given encouragement, assuming that it is in the interest of the public.

A principle common to all health professions, assumes that professional persons will give freely of their knowledge and experience to their confreres in the interest of the patient. This common sharing of knowledge precludes the assumption by an individual that he has the right or privilege of charging a fee for the dispensing of his

knowledge to a confrere. In other words, by professional traditions he is obligated to do so freely.

However, custom decrees that when he is selected to act as an instructor, lecturer or director, etc., on the assumption that such formal presentations require specific preparation and planning, he is entitled to remuneration. Such remuneration, however, should be reasonable, based on time and expenses involved.

The sponsoring organization should be the one to determine the honorarium and should state the amount to be paid at the time of extending the invitation. Dictation by a speaker as to an amount of money desired for delivering a lecture or directing a course, should be considered out of order.

Every dentist should feel obligated to accept some of these assignments. However, if the demand on him exceeds the amount of time that he can devote to such activities, due to health, contractual obligations, etc., he should limit such assignments to the number which he can reasonably handle and decline others. To make his services available on a high fee basis violates his obligations to his profession.

While the principle of an honorarium for such services is approved, it should be on a reasonable and uniform basis. *Remuneration based on a per capita or a percentage of tuition charge is not acceptable.*

Cooperation of societies or groups in providing honorarium and expenses for an essayist for a lecture tour is not considered out of order, if reasonable. However, an effort by an individual to offer a series of lectures or courses of instruction, under his own auspices and with income as a definite objective is not acceptable.

Not all continuing educational efforts need financing, but where necessary, it should be done with the above principle in mind.

My colleagues who follow me on this panel will discuss the various areas of continuation of educational efforts. Dr. Brandhorst and the Council on Education of the A.D.A. have developed some definitions which should clarify some of these areas to be discussed:

Differentiation Between Course and Program:

A program is a planned sequence of courses designed to provide the education, experience and training required for the acquisition of an advanced degree or a certificate of accomplishment. A program does not have the same meaning as a course. For example, a number

of individual courses such as anatomy, oral pathology, physiology and others, may be included in a graduate program of oral surgery and lead toward a Master of Science degree, or courses by these same titles might be included in a post-graduate program of oral surgery and lead toward a certificate granted by the dental school.

Graduate Program:

A planned sequence of courses leading to an advanced degree, such as an M.S., M.S.D., or Ph.D., granted by a recognized educational institution.

Postgraduate Program:

A planned sequence of courses that does not lead to a degree but one for which the student may be awarded a certificate. The level of instruction in the postgraduate program may or may not be similar to that in the graduate program and the student may not be required to meet the same entrance requirements expected of the student registered for a graduate degree.

Continuation Education:

Continuation education is the terminology used to describe the informal courses, usually of short duration such as one or two days to several weeks on either a full-time or intermittent basis, which are offered to provide practicing dentists with information about new developments in technique and science. Continuation education may be offered under the supervision of an individual, a dental organization, or an educational institution. A continuation program in education for the profession might well include the following:

Extension Courses:

Extension courses or programs offered by educational institutions are distinguished largely by the fact that they are made available outside the facilities of the school, such as a branch or by mail. They may or may not be of an advanced level and are actually devoted largely to under-graduate courses or courses that are mostly of a vocational nature.

Seminars:

A Seminar is a group effort in study or research conducted under the leadership of one or more persons possessing special knowledge in the areas of study.

Study Clubs:

A study club is an organized effort on the part of individuals to pool their knowledge and interest for the benefit of all participants. Study clubs may be of two kinds: (a) Where the objective is basically instructional and (b) where the objectives are basically investigative.

Scientific Programs and Exhibits:

Scientific programs are programs offered by organizations or institutions that offer lectures or discussions on various subjects of interest to the practitioners in an effort to keep the practitioners abreast of developments. Scientific exhibits offer further opportunity for this, depending more on the visual aspects of the educational process.

Another area that looms large in a continuing educational program is literature. This hardly needs to be defined, but should be thought of as including books, periodicals, reprints and all the written records of the profession.

All these areas will be brought into focus by the panelists.

The Need for Continuing Effort and Opportunities Available

DR. BLACKERBY

THE LATE DISTINGUISHED Justice Louis D. Brandeis, of the U. S. Supreme Court, once stated that "a profession is an occupation for which the necessary preliminary training is intellectual in character, involving knowledge, and to some extent learning, as distinguished from mere skill; it is an occupation which is pursued largely for others and not merely for one's self; it is an occupation in which the amount of financial return is not the accepted measure of success."

Only a few years ago dentistry's right to professional status was subject to challenge, but today dentists individually and collectively are recognized almost universally as members of a true and honorable profession—learned, skilled and dedicated to the public welfare. Thus it is that dentistry has established for itself certain standards of conduct by which we may ever strive to sustain and improve our record of scientific achievement and public service. These standards have been assembled, refined and identified in the form of the *Principles of Ethics of the American Dental Association.* One of these Principles states that "the right of a dentist to professional status rests in the knowledge, skill and experience with which he serves his patients and society. Every dentist has the obligation of keeping his knowledge and skill freshened by continuing education through all of his professional life."

Thus it is clearly evident that the dentist as a professional man has both a need and an obligation to continue his education. Today the great body of knowledge that is dentistry, with its boundaries ever extending thru research, emphasizes the impossibility of making undergraduate dental education a complete preparation for a professional career, and points to the importance of developing in the student an understanding of his limitations and a desire for continued study. With almost continuous changes and improvements in dental practice being made possible by new knowledge arising from scientific investigation, it becomes increasingly necessary for practitioners, both young and old, to take advantage of every oppor-

tunity to increase their knowledge and to keep themselves and their practice methods up to date.

One of the marks of a profession is that it is self-regulating—with standards of education, conduct and service established and controlled by the profession itself. This constitutes both a legal and a moral obligation and requires of the profession a high sense of duty and responsibility for the proper discharge of this self-regulatory function given it as a symbol of public confidence and respect. Here again it is incumbent upon the dentist as a professional man to maintain and improve his level of competence and quality of service thru continuing education.

It has been suggested that periodic re-examination should be instituted by law, to insure that dentists and other professionals maintain their qualifications for licensure and keep abreast of the times. Such legislation, however, should be unnecessary for a true profession which strives conscientiously to abide by the standards of education, conduct and service it has set for itself. And a systematic plan of continuing education is an essential part of that effort.

Until recent years the dentist with a sincere desire to improve his knowledge and skill found but little encouragement in his quest for continued education. For the most part, he had to content himself with reading a few professional journals of unappealing format and mediocre quality, and attending periodic dental society meetings whose programs were, to say the least, of limited scientific value. Unlike his medical colleagues, he had no opportunity to compare his practice methods or to exchange views with other members of his profession, in the hospital or in other group practice situations. He was professionally isolated, with little incentive or opportunity for learning.

Today's practitioner, however, enjoys a vastly different situation. Opportunities for continuing education are available on all sides and in many forms. Dental schools in all parts of the country, offer short, convenient "refresher" courses of high quality, using modern, appealing and effective communication media, including telephone and television. Dental societies have strengthened and improved their meeting programs to meet the practical, day-to-day needs of their members. Study clubs, workshops, seminars and conferences provide a wide variety of learning experiences for busy practitioners, and specialty organizations, health departments, universities and

voluntary health organizations are contributing to the continuing education resources of the dental profession. Dental journals have been greatly improved and research findings in condensed, readable form are new available to the dentists thru periodicals such as Dental Abstracts. Library services, films, slides and recordings are provided for the dentist on loan by the American Dental Association as well as by some constituent societies and individual dental schools. And equally important, the traditional professional isolation of dental practitioners is being overcome to a limited but encouraging degree by their participation, in increasing numbers, in hospital service and group practice.

But one note of caution must be sounded, too. As with all commodities or services, when a substantial demand has been created, there are always some individuals or agencies seeking to capitalize on the potential market, without regard to professional ethics or standards. We must be on guard always to keep our continuing education activities under reputable, non-profit, professional auspices.

Each of these phases of continuing education in dentistry will be discussed in some detail by members of this panel, so I wish only to summarize these introductory remarks by reiterating my original premise that the dentist as a professional man has both a need and an obligation to continue his education always, for which we can say with pride the opportunities today are plentiful and appealing.

Opportunities at the University or Dental School

DR. CONLEY

IF EACH OF YOU WITHIN my hearing were asked if you had even been a member of a dental study club, the answer undoubtedly would be, "yes." If I were to ask if you have engaged in a routine program of continuation study at one of the schools of dentistry, very few of you could answer in the affirmative. Yet I fully realize that I am speaking before a group which represents the highest ideals of our profession. Your contributions have been great and your interest in better services for our patients is unquestioned.

Study clubs have been responsible for significant contributions to the sum total of dental knowledge. It is a safe assumption that the same compelling desire for knowledge that resulted in the institution known as the "dental study club" is the same force that induced schools of dentistry to enter the field of postgraduate instruction. As universities accept the responsibility of expanding continuing educational opportunities it is quite possible that the need for study clubs will lessen. Continuation study at the dental school level goes beyond the selective efforts of small groups and invites all of the profession to participate in a varied program.

The program committee for this meeting has been judicious in the selection of a title sufficiently comprehensive to include consideration of various aspects of continuing educational opportunities at the university or dental school level. In the "Report on Graduate and Postgraduate Programs in Dentistry, 1956-57," issued by the Council on Dental Education of the American Dental Association, it is indicated that graduate programs are being offered by 73 per cent of the dental schools while 207 graduate programs have been offered during the 1956-57 school year, in thirty areas of the dental curriculum. It should be noted that with the exception of a few subjects enrollment is quite limited, usually from one to a maximum of six students. The same report lists 100 postgraduate programs in seventeen areas of the dental curriculum. Postgraduate programs on a formal basis are offered by 59 per cent of the dental schools. A report of the Council notes, "there has been an increasing interest

in graduate and postgraduate study in dentistry, both on the part of dentists interested in preparing for specialty board examinations and from practitioners interested in extending or bringing up to date the training which they received while in dental schools."

Fellowship programs and internships also are available. Not only the accredited dental schools but several accredited institutions offer programs of advanced study. Some of the schools of dentistry offer extension courses which are available outside the facilities of the school.

Already there are indications the specialty boards may relax present rigorous requirements relative to one or two years of full-time study, or equivalent, in a school of dentistry. Half-time programs, with an equivalent number of hours of instruction will permit fine, experienced dental practitioners to maintain their practices while proceeding with advanced study. It is quite possible that such a program will be the means of furnishing more trained teachers, who are so sorely needed for the undergraduate curriculum.

Another aspect of dental education which does not follow the requirements of university discipline for postgraduate or graduate study is known as "continuation education." For the purpose of this presentation we may accept the following definition: "Continuation education is a terminology used to describe the informal courses, usually of short duration, such as one or two days to several weeks on either a full-time or intermittent basis, which are offered to provide practicing dentists with information about new developments in technique and science. Continuation education may be offered under the supervision of an individual, a dental organization or an educational institution."*

Continuation education is the "life-line" of successful dental practice in the sense that it is one of the most efficient means for helping the members of our profession to keep abreast of current developments and thereby to provide the finest in treatment for those it is our responsibility to serve. Members of the profession have learned that a continuous program of participation in short courses of instruction at dental school level has helped them to become more proficient in keeping up with current developments.

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* Personal communication, Dr. Otto W. Brandhorst, Secretary, American College of Dentists.

While it is true that few dental schools have offered extensive programs within the structure of university discipline for more than a quarter of a century, it is a recognized fact that the present popularity became more firmly established immediately following World War II, by reason of the educational benefits provided for returning veterans. Dentists were enabled to participate, at government expense, in educational programs on the assumption that refresher courses were desirable to rehabilitate the dentist veterans to the current needs of dental practice. This type of thinking is now of the past and continuation study in dentistry now places emphasis upon today's knowledge of the things we do. The term, "refresher courses" has fallen into disrepute.

The evaluation of an effective program is dependent upon the quality of the instructional effort. Our colleagues who take time from their offices to participate in continuation study measure the character of the instruction in a very practical sense. The schools providing the instruction must answer this question: Has every member of every class been helped to provide a better dental service for his patient?

In the program at dental school level, instruction may be provided by a teacher who is essentially a full-time member of the undergraduate faculty; sometimes by a competent, skilled practitioner whose major connection with the school is his affiliation with the postgraduate program and, not infrequently by exchange faculty members from other schools of dentistry.

This integration of the non-resident faculty member, so-called—which includes standout practitioners and also the exchange faculty members—has resulted in a situation that has brought much good to the teaching of dentistry. Undergraduate teachers often receive inspiration and guidance from contact with non-resident teachers. A true teacher has humility and recognizes that expansion of knowledge can be gained by leaning upon the experience of others wherever and whenever encountered. This results in desirable improvements in the undergraduate curriculum and eventually the entire profession benefits.

In a program of continuation study it is permissible for faculty members from different departments to audit courses presented by other instructors. This policy helps to break down barriers and prejudices and creates a more harmonious atmosphere and a willing-

ness to integrate and work together. A tendency towards inbreeding in educational procedures is minimized. Instructors who perform under the scrutiny of other teachers and graduate dentists find that it is an exhilarating experience, that it is a constant challenge for improvement. In this sense continuing educational opportunities at the dental school level are subject to constant re-examination and revision.

General practitioners and specialists can return to the school of dentistry and enjoy with profit each new adventure in continuation study. New avenues of approach have been developed and there are new areas for cooperation between the general practitioner and those who specialize. Joint participation in courses of continued education brings them closer together. For example; the orthodontist may enroll in a course that provides a detailed study of occlusion under the guidance of teachers who thoroughly understand the overall problems of occlusion and its relationship with the periodontium. The same applies to the specialist in periodontics. The latter may also wish to devote time to a study of restorative dentistry to become more familiar with present day procedures. And the general practitioner, in turn, may wish to learn more about periodontal treatment in order to better understand the problems of the specialist and what to expect of the efforts of the periodontist. The specialist in oral surgery who enrolls in a course of instruction has the opportunity to exchange ideas with other oral surgeons and in some situations, as a contributing faculty member, can help in teaching general practitioners. There have been changes in the concepts of pre-denture surgery, periodontal surgery and periapical surgery as related to endodontic treatment. An understanding of the other man's problems cannot help but bring about a better service for the patient.

The school of dentistry with a well rounded program of continuation study is making a most significant contribution in bringing about an accelerated development of knowledge and dental science available for all. In short, continuation study represents the need and the desire of the sincere dentist to occasionally and periodically remove himself from the limited confines of his own four walls and to participate in an exchange of ideas with his fellows.

The schools which are eminently successful in this field are able to provide adequate facilities in the nature of supplies, equipment,

and patients. Continuation study is rapidly approaching a point where if it is to reach its maximum stature administrators must consider it of equal importance with undergraduate instruction and research. Continuation study is the basic ingredient, a most efficient instrument, for the true student of dentistry.

Dental education is not static; it is always searching for developments that will produce better trained hands and minds to provide efficient dental health service for the public. We do not know which is the one most important phase of dental teaching; which may have the most far-reaching effect upon the practice of dentistry. It may be in the field of the basic sciences, or in technics, or in research (which is receiving so much well deserved attention today), or in restorative procedures. Perhaps it may be found in the realm of continuation study which encompasses all of the facets of dentistry. Here, in the atmosphere of continuing educational opportunities at the dental school level, young graduates can develop in association with older graduates who return to the university to acquire new inspiration to challenge new horizons.

Opportunities Through Study Clubs

DR. REDPATH

"THE MOST FORMIDABLE bulwark in dentistry is the individual ambition, the eagerness and zeal manifest in pursuit of knowledge." This is a quotation taken from the report of the Committee on Continuing Educational Effort made last year by our Chairman, the late Willard Ogle.

This is provided in many parts of the United States by study clubs, which may be defined as "organized efforts on the part of individuals to pool their knowledge and interest for the benefit of all participants. Study clubs may be of two kinds—(1) When the objective is basically instructional and (2) When the objective is basically investigative."

To kindle the desire to learn is our goal. Today, more than ever, the man who is practicing dentistry as he learned it in school finds it a necessity to join some study group because of the rapid advance being made in dental science and practice. It is well to have these groups sponsored by the local dental society or state association when possible. From the ranks of the study clubs which have been in existence for several years come the teachers and instructors for new groups being formed. What men could be better qualified? In my opinion, one of the finest instructors at our local dental school received his training from study club work.

In speaking of opportunities of study clubs, I would like to explain how we operate in the Northwest, starting with Portland, Oregon.

Some years ago it became apparent that it would be necessary to obtain suitable quarters to accommodate the many study clubs in existence and for those being formed.

The Oregon Association for Dental Research, Inc., was organized in March, 1952. The initial money needed to equip the quarters was secured from the Oregon State Dental Examiners. Funds from license fees and examinations belong to the dentists and are used for dental education. This is one advantage when such funds are controlled by the individual profession and not by a state bureau of licenses. As of this date we have received a total of $11,000. The

next biennium the State Board of Dental Examiners will have $6,500 to spend, either for study clubs, the Oregon State Dental Association, or the University of Oregon Dental School projects. It is to our advantage to have men on the State Board of Dental Examiners who will direct the use of these funds and make them available for continued education.

The Oregon Association for Dental Research, Inc., acquired quarters in a low rent area, but still conveniently located. These were equipped with five complete dental units and a laboratory to accommodate all branches of dentistry. A set of bylaws was drawn up. Any person licensed to practice dentistry and a member of a participating club would be eligible for membership in the corporation. A participating study club would be any group joined together for the purpose of studying the science of dentistry. The initiation fee for a participating club was $300.00 paid to the corporation. Dues of $25.00 per month are collected from each club, payable to the corporation May 31 and November 30 of each year. The corporation has an annual meeting at which directors are elected, three for a three-year term, three for a two-year term, and four for a one-year term. Regular meetings of the Board of Directors are held every sixty days. The directors have the general management and control of the business affairs of the corporation. They receive no compensation for their services. The secretary-treasurer is bonded for $5,000.

We now have thirteen study clubs in the corporation. Each is a separate entity and has a membership of ten to twelve men. They elect their own officers and have their own instructors. Each club determines its membership fees to pay the annual dues to the corporation, their instructor, and other incidentals. Some of these clubs have been in existence for a long time. For example, the Portland Prosthetic Study and Research Club will be starting their sixteenth year this fall. Two members of this club travel a distance of 250 miles and one 60 miles to attend the meetings, indicative that membership in study clubs is not restricted to the city.

There are other study groups which function throughout the state. The Associated Gold Foil Study Clubs is comprised of six clubs. The Northwest Academy of Dental Medicine meets regularly and holds one seminar a year. A Pedodontics Club, a Prosthetic Club, a Periodontia Group, and a Gnathological Society meet at the new University of Oregon Dental School. The dental school

has provided space for these clubs which require special equipment and treats them as continuing postgraduate courses. At the end of the year certificates are presented to the members for the hours of work completed in a particular subject. Harmony exists with the study clubs which use the facilities of the dental school and those which are members of the corporation.

Nearly all dental schools are faced with the need of increased funds for the expansion of the continuing education program for the graduate dentist. Interesting articles on this subject appeared in the June issue of the *Journal of the American Dental Association.* The Century Club as outlined by Robert McNulty of the University of Southern California (Vol. 54, p. 785) and the Annual Dental Education Participating Fund established at the University of Buffalo and described by Gauchat, Mimmack and Van Arsdale (Vol. 54, p. 787) are two plans which have merit and should be encouraged in other institutions in order for us to progress in dental education.

Study clubs can develop a program for the continuing education of the dentist, but they must have a real purpose, be well organized and financed.

At the present time in Seattle, Washington, there are thirty study clubs that meet regularly. This does not include clubs that are in other parts of the state, such as Spokane, Tacoma, etc. Six clubs received their start through courses offered at the Dental School of the University of Washington. Four clubs use the facilities of the University. Twenty clubs meet regularly at the study club rooms in the Medical and Dental Building. The following is a list of the study clubs as to subject matter:

Orthodontics	6
Periodontology	2
Prosthodontics	4
Gold Foil	7
Inlay and Crown and Bridge	9
Amalgam	2
Total	30

The study club rooms in the Medical and Dental Building were first operated by the Association of Gold Foil Study Clubs. Approximately ten years ago these clubs donated the equipment to the Seattle District Dental Society, and since that time the Society has operated the study club rooms. The Society financed this but has

been reimbursed by charges made to the various clubs. Just recently the club rooms, for the first time, are operating in the black.

Each club pays rental to the Seattle District Dental Society at the rate of $1.50 per member per month on a nine-month basis. The additional cost per member in the various study groups is dependent on the honorarium paid to the study club leader. The remuneration to the instructors ranges from $50 to $75 per meeting and this cost is pro-rated among members.

Vancouver and the Province of British Columbia have an interesting arrangement for their study clubs. In Vancouver alone there are eleven. Plans are now formulated to build a two-story building for which the property has been secured. This will entail an expenditure of over $200,000. The building will have quarters available for twelve operating units, offices for the British Columbia Dental Association, the Vancouver District Dental Society, and the College of Dental Surgeons. The ground floor of the building will be leased to other firms, thereby bringing the rental costs for study clubs to a nominal fee.

How can a small area finance this undertaking? The dentists of the Province are under the jurisdiction of the College of Dental Surgeons, composed of nine men from different areas. These nine men are elected by the dentists and constitute the Board of Dental Examiners. The examination fee is $300. Dues are $75 a year compulsory for the 600 dentists. This does not include dues to the British Columbia Dental Association or to the Vancouver District Dental Society. This makes a healthy financial status for the members of the Province. When and if these plans are completed, the result will be ideal as well as an independent set-up to accommodate study groups.

We know there are many study groups throughout the country which have been in existence for a long time such as the Woodbury Gold Foil Club of Omaha, Nebraska which recently celebrated its 50th Anniversary.

In the Northwest, we believe we have a plan operating which is conducive to the future of study clubs, and information will be gladly given to any group.

It is my opinion that in the near future all study groups will be sponsored on a national level by the American Dental Association. What a clearing house there would be for new ideas, research, and continuing dental education!

The Contribution of Scientific Lecture Programs

DR. KURZ

IT IS A PRIVILEGE and pleasure to appear as a member of this panel, not only because of the personal honor, but because I believe that it is important for the scientific lecture program to be included as a separate topic in this discussion.

Few would deny that such programs have made a valuable contribution to postgraduate education of the dentist, but some would point out that lecture programs have not fully met the dentists' demand for continuing professional advancement.

In the early part of this century scientific programs of dental societies were the main source of postgraduate education. They served as a stimulus to the schools and to the profession as well. At that time lecture programs adequately supplied the practitioners' needs. As the schools correctly became more interested in continuing education, the importance of dental society programs diminished. They became a place for the highly skilled technician to display his technic; a place for the specialist to lecture to the general practitioner; a place for the presentation of numerous table clinics on a variety of subjects, but very little more. All of this was done in an ethical effort, by the more experienced members of the profession, to share their knowledge and experience with their colleagues.

Let me quote the titles of several papers, picked at random from a scientific program:

"Orthodontic Appliances and Gingival Tissues"
"The Necessity for Early Diagnosis of Periodontal Disease"
"Traumatic Occlusion"
"The Treatment and Filling of Root Canals"

Do they sound familiar? Unfortunately they do. Unfortunate because these titles were taken verbatim from the 1918 program of the American Dental Association. Almost forty years later we find some of the same general types of programs presented at dental meetings. The contents of the papers have changed, to reflect the rapid developments in dental practice, but the method of presenting them, in many instances has remained almost unchanged.

To be truly educational, scientific programs require the proper utilization of every available modern teaching method.

A gradual change has been noted in the programs at various society levels. Seminars, forums, panels and symposia are becoming popular. Program committees are making use of modern methods of teaching and are planning programs for the benefit of the general practitioner.

Among State societies, noteworthy examples are the Michigan State Continuing Education Courses, which are conducted at component levels, the Illinois State Society Caravan Project, also the Illinois State Seminar, with its advance distribution of the seminar manual.

At the national level, the American Dental Association Council has expanded its Scientific Session to include the following programs: Essays, Table Clinics, Projection Clinics, Consultation Clinics, Motion Pictures, Television Clinics, and Scientific Exhibits. These programs are becoming so related and so integrated that, when possible, a subject presented as an essay may be followed into the Consultation Clinic and continued in the Demonstration Clinics or Visual Aid Programs. Copies of information on related programs are made available at the Essay Program. In this manner it is possible to present a complete course on a subject during the annual session. In the essay program, panels and forums on selected subjects are gradually replacing many of the individual section type lectures.

The scientific sessions of organized dentistry must present programs which will help to answer the practitioners' demand for continuing education. The make-up of the program must be approached from the standpoint of the problems encountered by the practitioner in his effort to render a complete dental health service for each patient, rather than from the specialty areas.

Certain qualities which differentiate the scientific session from the formal postgraduate program and make it a valuable instrument in the continuing education of the dentist include the following:

The spotlight of publicity is on the scientific program and this can be used effectively to educate both the public and the profession.

It affords an opportunity for individuals not connected with schools, or with large research centers, to share their knowledge with their colleagues.

It involves for the dentist, only a few days away from his practice, and can be used as a combination vacation and educational trip.

It can be used to promote discussion on, and interest in, unexplored areas of dentistry.

It can provide, through such mechanisms as consultation clinics, table clinics,

and scientific exhibits, intimate contact between outstanding men and the general practitioner.

It can help to promote a philosophy of dental practice which provides maximum dental health service for all patients.

To be considered a major factor in continued education, the scientific session must provide a program which will enrich the dentists' knowledge, educate the public, encourage research and make a substantial contribution to the advancement of the art and science of dentistry.

In Memoriam

Dr. S. Ellsworth Davenport, Jr.

Dr. Davenport, a member of the Board of Regents for the past three years, passed away on May 26, 1958 following a heart attack. We mourn his passing.

The Predominant Role of Literature*

DR. McBRIDE

THIS PANEL is concerned primarily with a critical examination of "continuing educational efforts and opportunities for professional advancement." Essentially we are considering here means by which the practicing dentist can render more and better dental service to the people, and to serve them with more understanding. Let us guard against becoming misled and confused by words.

Now there have been tossed about, words and phrases that Anatole France termed the "almond icing." Of the matter at hand, we know about the philosophy of procedure, the need for accomplishment, the opportunity for advancement, and some of the means for achievement; about these matters, few will quibble. However, the methods for achievement should be given careful scrutiny—particularly with regard to their relative importance and effectiveness.

The ways and means for continuing education currently available and capable of expansion might be listed loosely in this fashion: courses, study clubs, seminars, programs, workshops, conferences, postgraduate and graduate instruction, extension courses, scientific programs, scientific and commercial exhibits, and literature—books and periodicals. Is there one of these most important than all the others, more effective, more nearly capable of developing our aims? Is there one greater than each or all of the others?

I say, of all the measures to further the continuing education and professional advancement of the dentist and to enable him to better meet the health needs of his patients, reading and reflective study—the full utilization of the literature—play the predominant role.

The professional man may listen to lectures, study at seminars, participate in postgraduate programs, seek graduate instruction, become weary at workshops and conferences and society meetings, and eye the exhibits; but there remains the need to bolster what he has heard and seen; the need for help in assimilating the meaning of the theories, the principles, and the technics that have been revealed to him. Inevitably he must read the literature if he is to acquire the

* Presented by Dr. Isaac Sissman, Pittsburgh, Pennsylvania, a member of the Committee on Journalism.

necessary perspective, depth of knowledge, and wide background to enable him to evaluate, experiment, and use.

Lectures, courses, the various programs of instruction are largely ineffectual unless supplemented and strengthened by the study of the written word. One is stimulated and fired to enthusiasm and resolve (frequently fleeting) by listening and watching, but solid and lasting learning is attained only when literature is used to reinforce and give cogency to the word and the demonstration. The use of literature makes it possible for the reader to marshal the facts; to sort and group the findings; to grasp their importance, their adaptability to his needs and practice; and to pin down their significance to him and their value to his patients.

The professional man can never close the school books or leave untorn the wrappings of the periodicals. The use of literature is the ultimate and universal means of acquiring the breadth of vision —the broad view—concerning newer concepts in dentistry that will enable the practitioner to meet his full responsibility to his patients and to serve better his community.

If we recognize this prevailing influence of literature in the continuing educational program, we assume a responsibility toward the avenues of communication. Journals will have to be improved, enlarged, and subscribed to; more books and monographs will have to be published and bought. The more that are read, the more there will be. But, *both books and periodicals must be read!*

It is a valid assumption by those who observe our journalism and by those who publish our books that dentist-readers are indeed a lamentably small group. This form of academic atrophy must be recognized and treated and replaced with intellectual growth. The success of all the educational efforts such as we are discussing on this panel is predicated on the development of a dental profession that reads its literature. The desire to read, the ability to read, must be encouraged early and fostered carefully in the undergraduate student group, and promoted actively in the graduate practitioner group.

There is the nub of the problem of continuing education and professional advancement; there is the essence, the true nature of the difficulties in establishing a realistic program of continuing education. Until that situation is rectified—and it requires serious and much more consideration than has been accorded it previously

—the total effectiveness of any expanded program of continuing education will not be increased significantly. So long as there is a page of print, and it is read, so long will learning continue.

Aside from our preoccupation with the educational aspects of reading, let us consider one or two other related advantages and pleasures.

Surely the dentist who reads widely and well can fit into Charles William Eliot's (the long-term President of Harvard University) definition of a "cultivated man":

> ". . . a man of quick perceptions, broad sympathies, and wide affinities; responsible, but independent; self-reliant, but referential; loving truth and candor, but also moderation and proportion; courageous, but gentle; not finished, but perfecting."

And remember the words of Anthony Trollope: "The habit of reading is the only enjoyment I know in which there is no alloy. It lasts when all other pleasures fade. It will be there to support you when all other resources are gone. It will be present to you when the energies of your body have fallen away from you. It will last you until your death. It will make your hours pleasant to you as long as you live."

Those last few words carry a connotation that is vital to continuing education. It was Bismarck, in his later years, who said, ". . . I learn just as long as I live, I am still learning today." Statecraft was his forte, but reading must have been his sustenance.

General Discussion

MODERATOR STRIFE: The panel is open to questions from the floor and I would like you to direct your question to the individual panelist.

QUESTION (to Dr. Blackerby): What should be the role of the American College of Dentists in promoting or providing continuing education?

DR. BLACKERBY: It seems to me that an organization such as the American College of Dentists is inherently interested in this problem. Membership in the College should in itself be a stimulating influence in terms of a man wishing to improve himself and continue his education. I think the College can provide leadership, through its committees, its officers and its various activities, to encourage and support the dental schools, dental societies and other organizations in their efforts to improve and expand continuing opportunities for the profession as a whole.

I think such programs as the one this morning, sponsored by the College will have some influence in promoting wider acceptance of the philosophy of continuing education as a life-long responsibility of every professional man.

I think the JOURNAL of the College, which in my mind has been developed as a very effective and excellent example of good dental literature, can have an influence in promoting, encouraging continuing education for the dental profession in the literature carried within the JOURNAL itself, and in other ways the JOURNAL can exert its influence on the dental profession as a whole.

QUESTION (to Dr. Redpath): What steps are being taken to recognize those that compose study clubs?

DR. REDPATH: Unfortunately, at the present time the members of the study clubs have not been recognized as far as credits or such as that are concerned. We are hoping that recognition will be given to members of study groups on a national basis, that some day those that belong to groups will receive credits toward a national group, but so far we have been unsuccessful.

QUESTION (to Dr. Redpath): Would it be possible to have the names of people to contact in Portland, Seattle and Vancouver so further information can be gotten?

DR. REDPATH: In Oregon, of course, it is the Oregon Association for Dental Research, Inc. in Portland. In Seattle and Vancouver it is the District Dental Society.

QUESTION (to Dr. Blackerby): How may the rank and file of the profession be stimulated to seek continuing education?

DR. BLACKERBY: I think fundamentally this is a responsibility that rests with the dental schools. The character and nature of a man's undergraduate education in dentistry, I think, will determine to a considerable degree his action in seeking continuing education after he leaves the dental school.

I believe that we have made real progress in our dental schools in the last generation in developing on the part of the students a consciousness of the importance of continuing their education after graduation from school. They have a realization that their education is not complete when they receive their degree.

So, in my opinion at least, the basic responsibility rests with the dental schools themselves. Of course, a man as a member of the profession is assumed to have a desire for improvement of himself in order that he may better serve his patients and we should be able to expect a ready response to any efforts that may be made to encourage the rank and file of the general practitioners to undertake continuing educational activity.

I think the dental societies and the American College of Dentists also have a responsibility for encouraging their members to think in terms of continuing their education at regular intervals. Through their Journals and by other means, particularly by scientific programs, they can have a strong influence in stimulating the majority of the members of our profession to recognize both the need and the responsibility for continuing their education throughout their professional lives.

MEMBER: I would like to add something to Dr. Redpath's statement which may be of value. There is an American Academy of Gold Foil Operators which just held a meeting in New Orleans this past weekend. They have all the information necessary for the formation of Gold Foil Study Clubs and the address of the secretary appears regularly in *The Journal of the American Dental Association.*

QUESTION: Are there any courses provided for continuing study for dental educators and dental administrators?

DR. BLACKERBY: I know of no formal course for dental administrators. There is an effort being made by the University of Michigan in the last few years to develop as part of their graduate curriculum in dentistry a phase that will deal specifically with the needs of the teacher as contrasted with the needs of the specialist—the oral surgeon, orthodontist, or what not. There are other schools that have made similar efforts to tackle the problem of preparing a man for teaching, per se, as well as increasing his knowledge in his particular specialized field of dentistry.

I might mention also, as Dr. Strife has reminded me, that the American College of Dentists is at the present time offering one or two fellowships per year for promising young men who are embarking on careers in dental education.

QUESTION (to Dr. Kurz): Is it your opinion that it is the function of the A.D.A. Scientific Session to provide sufficient continuing education for a dentist without resorting to other means of continued education?

DR. KURZ: No, I don't believe it is possible for the American Dental Association or any other organization of dentistry to provide all of the needs for the dentist's continued education. I would say that the annual session of the American Dental Association should supply an inspiration to the dentist to continue his education.

QUESTION (to Dr. Blackerby): I hope I am correct in interpreting that the function of continuing education is to make the dentist a better citizen of the dental profession. If this assumption is correct, I would like to know whether the scope of continuing education includes training for leadership. Texas has recently inaugurated a formal course of training for leadership. The First District Dental Society of New York had a course of training for leadership. You do consider that within the scope of dental education there should be training in the problems of the growth of the profession?

DR. BLACKERBY: I think the question, as I understand it, is whether courses in leadership which are being offered can be considered part of continuing education. I would say very definitely that anything that will improve a man's intellectual capacity, his moral caliber, and his general ability, whether it be in dentistry or as a citizen of his community, is an important part of continuing education. We might say that it perhaps is not continuing dental education in the traditional sense, but I quite agree that this con-

cept of continuing education should be broad and we should think in terms of the over-all man, not just the dentist, when we think of continuing education.

ARTHUR H. MERRITT (New York, N. Y.): Mr. Chairman, I should like to know if any organized effort is being made to promote the predominant role of literature in dentistry? It seems to me one of the important things in professional life is the cultural aspects of literature.

DR. SISSMAN: There are three bodies that are working on this project. One is the Council on Journalism of the American Dental Association, another is the American Association of Dental Editors, and the third is the Committee on Journalism of the American College of Dentists. These three groups are fairly overlapping inasmuch as some members belong to two or even three of these, but they are coordinated groups working together for the very purpose that you have mentioned, to improve the quality of the dental literature and to provide material which the dentist will be glad to read, rather than to do it as a matter of duty. I believe that as time goes on the results of the efforts of these three groups will be more and more apparent.

The problem of getting good literature is a very serious one because few dentists are professional writers—they are either practitioners or researchers and their writing is an avocation which they must do in spare time without formal training. I believe the quality is constantly improving and we are going to get better and better journalism.

QUESTION (to Dr. Conley): Is the tuition or fee for postgraduate courses or participation in private study clubs tax-deductible by the participating dentists?

DR. CONLEY: That is a situation that has received different answers in different sections of the country. (Editor's note: A 1958 ruling by the Internal Revenue Service indicates such expenditures are deductible.)

QUESTION (to Dr. Blackerby): What about short, high tuition courses offered privately by reputable dentists, and courses offered by ethical dental manufacturers or supply companies?

DR. BLACKERBY: I think, without appearing to offer any official answer in any way, this is a matter of judgment by the organized profession. As regards courses offered by individual dentists, I think

some of the criteria that we should keep in mind in terms of the ethical status of courses of this type are: 1) They should be sponsored, preferably, by a recognized education institution or a dental society; 2) they should be non-profit in the true sense that the remuneration paid to the director or the instructor of the course should be at a reasonable level; 3) they should not be of a promotional nature in terms of their relationship to some instrument or appliance or technique or procedure that is related to one particular individual which when used widely will inure to his benefit monetarily or in other ways; 4) they should, of course, be of high quality.

As far as such courses being offered by commercial organizations, dental manufacturing or dental supply companies, I believe it has been the interpretation of the American Dental Association that the sponsorship for postgraduate or continuing education for the dental profession should rest with the profession itself; either through its representative societies, its dental schools or the like, and should not come from sources outside the profession.

Co-Moderator Blackerby: I would like to take this opportunity to express on behalf of Dr. Strife and myself and the officers of the College as well, our appreciation to Dr. Conley, Dr. Redpath, Dr. Kurz, Dr. Sissman, and of course Dr. McBride for whom Dr. Sissman was substituting this morning, for their contributions to what I hope has been a very interesting and very stimulating program on the subject of "Continuing Education in Dentistry." We are grateful to all of you.

The session was adjourned.

A Study of the Teaching of Oral Diagnosis and Oral Medicine

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EDITOR'S NOTE: *While the accompanying article is not of the type usually published in our* JOURNAL, *it is an excellent discourse and review of the position of Oral Diagnosis and Oral Medicine in the field of dental education, a field in which the College is very definitely interested.*

A.E.S.

(Continued from March Issue)

Dr. Rochon has indeed written an excellent paper. It is true that the student is, in effect, in "dress rehearsal." However, there must be many rehearsals *before* the dress rehearsal and, for these purposes, the charting and recording need not follow what the future dentist will use in his office. As a matter of fact, it would appear to us that, early in rehearsal, it is impossible to proceed as if one were in practice.

At its annual meeting in 1944, the American Association of Dental Schools appointed a Committee on Oral Diagnosis consisting of Drs. D. E. Ziskin, L. W. Burket, and G. C. Blevins.[10] This Committee sent a questionnaire to all dental schools in the United States and Canada regarding the teaching of Oral Diagnosis. The opinions and recommendations of this Committee are based on the twenty-six replies which were received.

Believing that ideas of this nature are indefensible from an educational standpoint and incapable of serving the best interests of the dental profession and the health seeking-public, this Committee here sets forth what it considers a simple yet comprehensive method of teaching oral diagnosis and processing patients. A student may handle 75 to 125 comprehensive examinations in his school experiences besides "emergency" diagnosis. He is taught a distinct discipline in oral diagnosis which forms the basis for intelligent prognosis and treatment.

The relation of diagnosis to other phases of dental and medical practice is generally recognized. But the theoretical approval of this concept does not

suffice. Neither does a haphazard nor half-hearted approach to realization of the stated objectives solve the problem. Oral Diagnosis should function actively and logically as a coordinating agent between it and dental practice as a whole, which necessarily includes the basic sciences and other health services. A strong diagnosis department operates as a clearing house for patients, expedites public service, and forms the basis for sound educational procedures. Finally, it constitutes a central source from which research material can be made available.

The questionnaire revealed that instruction under the title of Oral Diagnosis was given in 85 per cent of the institutions. There was considerable variation in the number of lecture hours, ranging from 8 to 64 with a weighted average of 26. The content in the overwhelming percentage of schools included the symptoms and signs of the hard dental tissues, the pulp, periodontium, oral mucosa, technique and interpretation of clinical and laboratory diagnostic tests, x-ray, and treatment planning. The Committee made the following recommendations for the lecture series:

1. Instruction in the proper method of patient reception and management which will inspire confidence in the ability and judgment of the operator and allay nervous apprehension.
2. Instruction in the routine and technique of case history recording and making a comprehensive oral examination and proper interpretation of the above.
3. Instruction in the various techniques and procedures of general diagnosis, including indications for laboratory procedures and the critical evaluation of the above.
4. General instruction in all or most of the subject headings previously listed.
5. Instruction in the general treatment planning of the case.
6. The furthering of the concept that dentistry is a health service profession in which the patient is the basic unit of treatment.

As for the clinical instruction, the Committee made the following recommendation:

The plan here recommended is the centralized plan. With complete awareness of the objections to a centralization, it is felt that the advantages outweigh the disadvantages and that the disadvantages may be minimized by proper organization. . . . *The great need for this training in correlation is attested by the recognized deficiency in judgment on the part of dental graduates in contrast to their proficiency in operative procedure.*

Dr. H. Golton, in commenting on the paper of Dr. C. F. Bodecker,[11] made the following statement which, as we shall learn later, is pertinent to this discussion:

It is just as inconceivable that a dental school do away with its department of oral diagnosis as a medical school could manage without a department of internal medicine.

The statement has been included here because it represents the opinion shared by a number of teachers in this field. This quotation implies that oral diagnosis is the dental counterpart or homologue of internal medicine. We shall attempt to analyze this relationship later in the report. For the present, suffice it to say that this scheme makes no allowance for Oral Medicine as originally outlined by the Curriculum Survey Committee.[1]

In September 1955, Dr. K. J. G. Sutherland, in his inaugural address as Professor of Dental Science,[12] used the term Oral Medicine in two different ways. First, the designation was employed in its broadest connotation:

> . . . the modern dental surgeon, so-called, is nothing less than an oral physician practicing day in and day out the art and science of oral medicine.

And then, the author recognized that the term has a more restricted meaning:

> *Oral Medicine* is concerned with various diseases of the oral cavity such as infections, nutritional deficiencies, skin diseases appearing in the mouth, and so on, which require to be treated essentially by medical means. Many encountered diseases of this nature result from general bodily disease and such cases require the cooperation of the physician, skin specialist, or other medical specialist. I should point out here I am using the term Oral Medicine in its restricted sense. . . .

In short, Dr. Sutherland recognized: (1) the double meaning of the term Oral Medicine, and (2) the fact that Oral Medicine, in its limited sense, refers to *nonsurgical* dentistry. It is appropriate, once again, to raise the question as to whether Oral Medicine is to be distinguished on the basis of the eventual type of therapy.

Baume,[13] in a talk before the Fourth Annual Meeting of the Federation Dentaire Internationale in Zurich, introduced his presentation with the following statement:

> Oral or dental medicine may be defined as the non-mechanical phase that brings the application of basic principles of human biology and the fundamentals of general medicine to the practice of dentistry.

Here again, we find another, rather refreshing definition in which the biologic, non-mechanical aspects are recognized as the common denominator in Oral Medicine. However, no definition is offered for Oral Diagnosis nor is the relationship between Oral Diagnosis and Oral Medicine analyzed.

Asgis[14] has defined Oral Medicine, in a recent progress review, as:

. . . the field may be defined as the science and art of diagnosing, treating, and preventing diseases and lesions of the oral mucosa and adjacent structures of regional or systemic origin for the promotion of general and oral health.

It is difficult to see, from the above definition, how Oral Medicine differs from Dentistry.

Jacobson and Degering[15] have summarized the present opinions of teachers of Oral Diagnosis. The recommendations of the conference at the College of Dentistry, Ohio State University, in September 1954, as they viewed them, are summarized in the following:

1. That the Department of Oral Diagnosis teach by means of lectures, demonstration, and group participation, the clinical evaluation and correlation of subjects taught by other departments. Every attempt should be made to avoid encroachment upon departmental prerogative.
2. That wherever practicable, instruction be by means of the seminar approach.
3. That distinction be made between records made for institutional purposes and those applicable to dental practice. That it would be desirable to establish an institutional chart form readily adaptable to office procedure. By this means, it is hoped that the graduate would be induced to keep more consistent case histories and valid records.

One gains the impression from these recommendations that, in the opinion of these participants, that: (1) there should be a Department of Oral Diagnosis, (2) one of its cardinal purposes is integrating the subjects taught in the other dental disciplines, (3) a highly desirable teaching technique is the seminar method, and (4) the forms used in the Department of Oral Diagnosis should be consistent with the needs of the practicing dentist.

It will be our purpose later in this report to analyze the desirability of maintaining a Department of Oral Diagnosis. We shall further consider the integrative role of this department and the question of recording forms.

There are many other publications which deal with the teaching of Oral Diagnosis.[16-55] There seem to be a number of common points which are summarized in the following list:

1. There should be a Department of Oral Diagnosis.
2. One of the important responsibilities of such a department is the teaching of diagnostic techniques.
3. The Department of Oral Diagnosis should only make tentative treatment recommendations.
4. An important departmental function is the teaching of laboratory tests (procedural and interpretive).
5. History taking is an important aspect of diagnosis.
6. The patient should be viewed as a whole.

7. The course should be taught by lectures and clinic demonstrations.
8. The Department of Oral Diagnosis is a most desirable focus for the integration of basic science material with clinical experience.
9. The present teaching of Oral Diagnosis leaves much to be desired.

In addition, it is clear from a survey of the literature that there are still a number of controversial issues:

1. The argument still rages as to whether there should be centralization or decentralization of diagnostic teaching.
2. There is still some debate as to the relationship of the routing, screening, admitting service and the Department of Oral Diagnosis.
3. There remains no clarification as to the relationship of Oral Diagnosis to Treatment Planning, Oral Roentgenology, Pathology, Oral Medicine and Endodontics.
4. The question is still unresolved as to the responsibility of ordering, doing, and interpreting laboratory data.
5. Still questionable is the issue as to how comprehensive should the diagnostic procedure be.
6. Unresolved is the problem of whether Oral Diagnosis should or should not embrace Oral Roentgenology.
7. Yet to be defined is Oral Diagnosis.

Of the many publications, there are only two,[1,56] which attempt to spell out, in *concrete* fashion, a method of teaching including actual course content with recommendations for time allocation, specific material to be included, etc. Breckus,[56] two years before the Curriculum Survey Report of 1935, attempted a plan. His thesis is well expressed in the following quotation:

> In a group of this kind, I expect very little diversity of opinion as to the importance of Oral Diagnosis in the dental curriculum, but I shall hope for a great deal of fruitful discussion as to methods and means by which the subject can best be presented to the undergraduate. . . .

The plan of Breckus, used at that time for about 20 years at the University of Minnesota, included the teaching of x-ray, physical diagnosis as well as the examination of the oral cavity.

It is obvious, from this brief review of the literature, that the scope, place and method of teaching Oral Diagnosis still requires considerable discussion and clarification.

The Oral Diagnosis Teaching Conference for Discussion of Curricula

A considerable portion of a two-day seminar in September 1954, at Columbus, Ohio was devoted to an attempt to define the *scope* of Oral Diagnosis. To some of the participants, the problem was

whether or not Oral Diagnosis and Treatment Planning should be considered an autonomous discipline. It is of parenthetic interest in this connection that a combined Oral Diagnosis-Treatment Planning course is in keeping with the recommendations twenty years ago by the Curriculum Survey Committee of the American Association of Dental Schools.[1] Other participants were more concerned with the relationship between Oral Diagnosis and Endodontics. This combination was not recommended in the 1935 survey. As a matter of fact, a careful study of the 1935 report discloses that Oral Medicine, not Oral Diagnosis, should include the principles and techniques now regarded as Endodontics. Other delegates to the Ohio meeting supported the idea of an Oral Diagnosis-Periodontia axis, while a few participants wished to justify a combined course in Oral Diagnosis and Oral Roentgenology. *The one common denominator throughout the discussions was the fact that no attempt was made to define Oral Diagnosis.* Equally significant was the fact that the boundaries for Oral Medicine were not considered. The impression gained from this conference is that herein lay the crux of the problem—namely, the glaring absence of definitions.

Dental School Catalogues

There is no question but that only a limited amount of information can be obtained from a study of the catalogues of dental schools. Still, it is of interest to note the administrative relationship of Oral Diagnosis to other departments and disciplines. An examination of the curricula of 43 American and Canadian dental schools revealed that the responsibility for the teaching of Oral Diagnosis falls into the lap of a number of different departments as shown in the following outline:

Department	*Number of Schools*
Oral Medicine	8
No responsible department	8
Oral Diagnosis and Treatment Planning	7
Oral Diagnosis	5
Medicine	3
Oral Diagnosis and Radiology	3
Pathology	2
Periodontology	2
Oral Pathology and Periodontology	2

Diagnosis	2
Operative Dentistry	2
Prostetic Dentistry	1
Oral Surgery and Oral Medicine	1
Stomatology	1
Dental Technics and Clinics	1
Clinical Dentistry	1
Oral Pathology	1
Dental Medicine	1
Diagnosis and Radiography	1
Oral Pathology, Diagnosis, and Therapeutics	1

There is no question but that it is hazardous to draw any sweeping conclusions from an examination of dental school catalogues. No doubt, in many institutions, Oral Diagnosis, however defined, is managed well either separately or under the supervision of another discipline. This may be due to the economic design of the school and/or the presence of an interested teacher in any department. Still, there is the inescapable fact that when a problem and its solution are clearcut, there are generally no semantic problems. For example, there is usually little or no problem with the teaching of Oral Surgery. The scope and administrative relationships of Oral Surgery are spelled out clearly in most institutions. It follows then that its place in dental school is seldom a problem. And so, once again, one wonders whether the myriad positions of Oral Diagnosis in the administrative frame may not be due to a lack of agreement as to a working definition of Oral Diagnosis.

In line with this same type of thinking, it is interesting to note the designations for the courses which normally include the subject matter of Oral Diagnosis. These are shown in the following outline:

Subject	*Number of Schools*
Oral Medicine	13
Oral Diagnosis and Treatment Planning	9
Oral Diagnosis	8
Dental Medicine	5
Diagnosis	4
Clinical Oral Diagnosis and Treatment Planning	2
Oral Medicine and Oral Diagnosis	2
Clinical Oral Diagnosis	2
Oral Diagnosis and Oral Radiology	1
Clinical Diagnosis	1
Clinical Diagnostic Methods	1
Diagnostic Procedures	1

Dental Diagnosis and Treatment Planning	1
Oral Diagnosis and Treatment	1
Treatment Planning	1
Clinical Oral Pathology and Oral Medicine	1
Clinical Oral Medicine	1
Clinical Oral Pathology, Diagnosis and Treatment	1
Clinical Dental Medicine	1
Oral Diagnosis, Oral Medicine and Treatment Planning	1
Oral Diagnosis, Treatment Planning and Physical Diagnosis	1
Preventive Dental Medicine	1
Diagnosis and Roentgenology	1

Once again, it is hazardous to draw cosmic conclusions from dental school catalogues. However, it is clear that many different terms are applied to Oral Diagnosis. Conversely, Oral Diagnosis appears to have different meanings to many individuals. For example, the Department of Oral Medicine in one school teaches a course in Oral Medicine and Oral Diagnosis. One must conclude from this observation that, in the eyes of the teachers in that particiular institution, there must be something different between Oral Diagnosis and Oral Medicine. In another institution the Department of Dental Medicine teaches Oral Medicine and the Department of Diagnosis and Radiography teaches Oral Diagnosis and another course termed Clinical Oral Diagnosis. One must presume that Oral Medicine, Oral Diagnosis and Clinical Oral Diagnosis must be three distinct courses or possibly even separate disciplines. In a third school, the Department of Pathology offers a course in Clinical Pathology and Oral Medicine while Oral Diagnosis is taught in all departments. Finally, still by way of example, in another college the Department of Periodontology is charged with the course in Diagnosis and Treatment Planning and there are no provisions for Oral Medicine.

Again, no doubt, the material which normally falls within the scope of Oral Diagnosis and Oral Medicine may well be included in these institutions. *But it is apparent that these two terms must have different meanings for different people.*

Survey by the Council on Dental Education of the American Dental Association

Horner,[57] in 1946, reviewed a survey conducted by the Council on Dental Education. He pointed out a rather interesting point as shown in the following quotation:

> In its survey of the dental schools, the Council on Dental Education rated

the teaching of the clinical subjects on the basis of A = excellent; B = good; C = fair; D = poor. In determining relative standings, points were assigned to the different ratings as follows: A = 4; B = 3; C = 2; D = 1. . . . It will be observed that Prosthodontia received the highest rank and Diagnosis the lowest. The visitors for the Council were all impressed with the general need for improvement in diagnosis and treatment planning.

The teaching of Oral Diagnosis, ten years after the Curriculum Survey report, still left much to be desired. No doubt there are many reasons for this continuing state of affairs. However, one thread which seems to appear constantly is the problem of delineating the scope of Oral Diagnosis.

Definition of Terms

The problem of definitions, and their absence, is not unique in this isolated instance. A lack of well-defined terms is frequently the crux of a debate. Two individuals may argue interminably about the length of a wall because one insists that it is *ten* and the other vehemently contends that it is *thirty*. The argument vanishes the moment one admits to ten *yards,* the other to thirty *feet,* and both recognize that three feet equal one yard. The debate, purely and simply, is one of definitions. Its solution is impossible without such clarification. The questions which must first be answered are, "What is oral diagnosis and oral medicine and how are they related?"[58]

The term Oral Diagnosis stems from the Greek. *Dia* means *apart* and *gnosis* signifies *knowledge.* In other words, diagnosis means to know apart—to differentiate. It follows that there is absolutely no justification for the term *differential* diagnosis since the element of differentiation is already implied in the word diagnosis. Furthermore, oral diagnosis becomes a *technique* just as surely as cavity preparation, impression taking, canal reaming, scaling, and physical diagnosis. Thus, diagnosis is not synonymous with *clinical findings* or *final judgment.* To describe simply an arch form, the location of a frenum, or the bone level does not constitute diagnosis. It should be recalled that the Curriculum Survey Committee regarded Oral Diagnosis as a technique and that this same concept has appeared in a number of writings.

If this analysis be true, then there is no justification for a *Department* of Oral Diagnosis unless one is also willing to endorse a Department of Cavity Preparation in place of Operative Dentistry, a Department of Canal Reaming in lieu of Endodontics, a Depart-

ment of Scaling instead of Periodontia, a Department of Physical Diagnosis in place of a Department of Medicine. After all, cavity preparation is a technique taught and used in Operative Dentistry, canal reaming is a procedure utilized in Endodontics, physical diagnosis is an analytic method employed in Medicine. For what then is Oral Diagnosis a technique? To our way of thinking, Oral Diagnosis is to Oral Medicine as Physical Diagnosis is to Medicine. Of interest in this regard is the earlier remark by Golton[11] (p. 21). This statement evokes the question, "What then is Oral Medicine?"

It should be recalled that the Curriculum Survey Committee[1] attempted to define Oral Medicine. Reference was made in their report to a nonsurgical or medical denominator. The emphasis, however, was placed on root canal therapy. Their view, now in retrospect, is quite understandable. In 1935 the focal infection theory was in its ascendancy and the formal discipline, to which we now refer as Endodontics, was nonexistent. However, today, many if not most dental colleges teach an independent course in root canal therapy. Moreover, there is now little debate as to the definition and the scope of Endodontics. Consequently, there is now a need for redefining Oral Medicine.

To many present-day educators, Oral Medicine is synonymous with Stomatology and both of these terms are interpreted to encompass all of Dentistry. This viewpoint has already been discussed.[12] To others, Oral Medicine implies simply the study of the oral manifestations of systemic disease.

To the writers, Oral Medicine is that phase of *clinical* dentistry which emphasizes the *biologic, nonmechanical* aspects of oral health. Thus, in our thinking, Oral Medicine is a "horizontal" discipline in contrast to the vertical specialties such as Peridontology, Operative Dentistry, Oral Surgery, and Prosthodontics. In this sense, it is not alone since Pedodontics is also a horizontal discipline. To extend the example, Oral Medicine may be compared to Dermatology and Oncology, also horizontal specialties, with respect to Medicine and Surgery.

To many educators the horizontal-vertical dichotomy is acceptable without question. For those trained in the classical tradition, perhaps a word of clarification is in order. Possibly an example will help make the explanation more realistic. An important component, though by no means the only one, of Oral Medicine, as we view it, is

the *etiology* of periodontoclasia. True enough, the periodontologist is or at least should be deeply concerned with the causes of periodontal pathoses. Yet, the fact of the matter is that *most,* certainly not all, periodontists are more instrumentationalists than diagnosticians. To many practitioners, the designation "periodontoclasia" is *finality*. Actually, this term simply signifies that there are pathologic alterations in the color, size, shape, contour, consistency and/or position of the gingiva and other periodontal tissues. The term periodontoclasia actually provides no clue as to the *cause* of the pathosis. More sophisticated practitioners have coined more specific, admittedly more workable, terms such as periodontitis and periodontosis. These have even been subclassified. But here again, the designations tell us little about the cause of the disease process. In short, there is sufficient evidence from a number of sources that the average periodontologist, right or wrong, perhaps by temperament or training, is more engrossed in scaling techniques and tricks of equilibration than the subtle biologic innuendos of nutrition, stress, and metabolism as they influence the oral tissues. It is therefore desirable to concentrate a group of individuals who have as their prime interest the investigation of the delicate, often occult, difficult-to-determine factors in the initiation and progression of periodontal disease. Similar examples can be found in other dental disciplines. For example, prosthodontic training consists almost exclusively of fabricating a denture to fit the tissues. Little or no attention is directed to the ability of the tissues to tolerate this type of foreign body. This observation is readily confirmed by the paucity of research and publications about tissue tolerance with respect to prostheses.

It is true that the example just cited is in itself not justification enough for a Department of Oral Medicine. There are other problems, however, which require the interests, talents, and training of a specialized breed of clinicians. It is generally the individual with an interest in Oral Medicine who is apt to delve into such real, important, usually-neglected clinical problems as halitosis, headaches of dental origin, the cardiovascular effects of the dental experience[59] and ascorbic acid and gingival bleeding in its most subtle aspects.[60] These types of problems fit into the realm of Oral Medicine as defined in this report. Yet, in the average dental curriculum, little if any attention is paid to these areas. The oral surgeon, for

example, feels, because fetid breath is obvious in Vincent's infections, that the periodonotologist will consider halitosis in his course. Conversely, the periodontist, knowing that fetid breath occurs after the extraction of a tooth, is certain that the general problem will be discussed in the surgical lectures. Both teachers mention the problem of halitosis but nobody truly provides the student with the general picture. Thus we see that the existence of a field of Oral Medicine and a formal group, call it Section, Department, or Division, focuses attention upon a set of biologic issues and gives these problems a logical niche in the dental curriculum.

The Basic Problem

The limits for Oral Diagnosis and Oral Medicine have been set. One may take issue with them. No doubt there are institutions which accept these definitions, possibly by act if not by word. Usually, however, there are no definitions—no crystallization, no organization. Herein lies the crux of the problem.

It should now be clear why the University of Alabama School of Dentistry maintains a Department of Oral Medicine instead of a Department of Oral Diagnosis. Simply put, there is a Department of Oral Medicine for the same reason that there is a Department of Operative Dentistry instead of Cavity Preparation, a Department of Endodontics in lieu of Canal Reaming. The Department of Oral Medicine is primarily interested in the biologic, nonmechanical problems of oral health. One of its cardinal functions, in this regard, is the teaching of the differentiative method—so-called Oral Diagnosis.

Departmental Functions

A department, division, or section in a dental school approaches its greatest success when it satisfies a *triad* of functions. This concept has been succinctly captured in the slogan of the American Cancer Society—*teaching, service,* and *research.* We shall now consider in some detail how these three functions are managed within the: (1) *undergraduate,* (2) *postgraduate,* (3) *graduate,* and (4) *refresher* programs.

The Undergraduate Program

There is ample psychologic evidence that first impressions are often lasting. Thus, an unpleasant childhood experience may be

difficult if not impossible to erase. This is just as true in formal education as it is in other facets of life. And so it is for the *professional* child—the *undergraduate dental student.* A dull, non-rewarding anatomy course, for example, may well leave the student forever negativistic toward anatomy. An unpleasant first contact with Oral Diagnosis may alter the attitudes of the student for the rest of his professional life. No doubt, herein lays the explanation why one dentist forever avoids crown-and-bridge and another partial dentures. If this psychologic tenet be true, and there is ample support that it is, then the undergraduate's first exposure to a discipline is of paramount importance. For it is here, in his *professional infancy,* that we can make or break his attitude toward dentistry in general and its specific disciplines in particular. We have already learned from the report by Horner[57] that the present-day teaching of Oral Diagnosis leaves much to be desired. It follows, and this is supported by Barr,[2] that the practice of Oral Diagnosis in this day and age is "disconcerting" (p. 11).

Recognizing the importance of a first experience, the Section on Oral Medicine at the University of Alabama School of Dentistry attempts to give the undergraduate program top priority. The subject is presented to the student from these different angles: (1) *teaching,* (2) *service,* and (3) *research.*

The Teaching Program: The undergraduate course includes a planned program consisting of: (1) a *lecture series,* and (2) *clinical experience.*

The Lecture Series: The didactic portion of the course comprises 48 one-hour lecture periods which extend throughout the third undergraduate year. Actually, in the first semester, two one-hour lectures are given during the sixteen-week period making a total of thirty-two lecture hours. In the second semester, only one hour per week for sixteen weeks is allocated. As far as we are concerned, this does not appear to be the most desirable arrangement. The junior student is already meeting patients and, therefore, consciously or otherwise, must be making diagnostic judgments. It would appear more desirable to extend the course through the second semester of the sophomore year and the first semester of the junior term. However, this has been difficult to arrange in our administrative framework where the second semester of the second year is already overfilled.

The lecture series is designed to outline in *slow motion* the diagnostic technique. The general outline of the course is shown here:

Lecture	*Subject*	
1	The Scope of Oral Diagnosis and Oral Medicine	
2	Gross Appraisal of the Patient	(Stature)
3	Gross Appraisal of the Patient	(Gait)
4	Gross Appraisal of the Patient	(Speech)
5	Gross Appraisal of the Patient	(Age and Sex)
6	Gross Appraisal of the Patient	(Hands)
7	Gross Appraisal of the Patient	(History)
8	Gross Appraisal of the Patient	(History—Continued)
9	Gross Appraisal of the Patient	(Personality)
10	Gross Appraisal of the Patient	(Temperature)
11	Gross Appraisal of the Patient	(Pulse)
12	Gross Appraisal of the Patient	(Blood Pressure)
13	*Written Examination*	
14	Examination of the Head and Neck	(Size and Shape of Head)
15	Examination of the Head and Neck	(Skin)
16	Examination of the Head and Neck	(Hair)
17	Examination of the Head and Neck	(Facial Swelling and Asymmetry)
18	Examination of the Head and Neck	(Facial Swelling and Asymmetry—Continued)
19	Examination of the Head and Neck	(Temporomandibular Joint)
20	Examination of the Head and Neck	(Ears)
21	Examination of the Head and Neck	(Eyes)
22	Examination of the Head and Neck	(Nose and Paranasal Sinuses)
23	Examination of the Head and Neck	(Neck)
24	*Written Examination*	
25	Examination of the Oral Cavity	(Breath)
26	Examination of the Oral Cavity	(Lips)
27	Examination of the Oral Cavity	(Buccal Mucosa)
28	Examination of the Oral Cavity	(Saliva)
29	Examination of the Oral Cavity	(Gingiva)
30	Examination of the Oral Cavity	(Gingiva—Continued)
31	Examination of the Oral Cavity	(Gingiva—Continued)
32	Examination of the Oral Cavity	(Tongue)
33	Examination of the Oral Cavity	(Sublingual Space)
34	Examination of the Oral Cavity	(Palate)
35	Examination of the Oral Cavity	(Pharynx and Tonsils)
36	Examination of the Oral Cavity	(Teeth—Eruption)
37	Examination of the Oral Cavity	(Teeth—Arrangement)
38	Examination of the Oral Cavity	(Teeth—Malformations)
39	Examination of the Oral Cavity	(Teeth—Pigmentations and Deposits)
40	Examination of the Oral Cavity	(Teeth—Caries)
41	Examination of the Oral Cavity	(Teeth—Infections)
42	Examination of the Oral Cavity	(Teeth—Mobility)
43	*Written Examination*	

44 The Radiographic Examination
45 Laboratory Aids
46 Laboratory Aids (Continued)
47 Diagnostic Conclusions
48 *Final Written Examination*

It will be noted from the above outline that: (1) the lectures follow an orderly sequence, and (2) the outline provides for a complete appraisal by a dental practitioner. This, it should be recalled, is in accord with the opinions and recommendations of the Curriculum Survey Committee[1] (p. 4), Hine[3] (p. 11), Barr[2] (p. 11), Easton[5] (p. 13), Burket[6] (p. 14), Ginn[7] (p. 14), Cheyne[8] (p. 14), and Ziskin, Burket, and Blevins[10] (p. 96).

The major objection which has been raised to the above outline is the number of hours allocated to pure technique of evaluation. The fact remains that a technique—any technique—can only be learned if it is first taught and practiced in slow motion. Then, and only then, can the student *exercise* the method until he acquires speed and the procedure becomes reflex in nature. The learning of the techniques of cavity preparation, scaling, canal reaming, and impression taking are no different than the diagnostic technique in this regard. Yet, in our present teaching plan, much less time is allotted for the reflex achievement of patient appraisal.

Implicit in our teaching of future dentists is the belief that the technique of appraising an individual is either instinctual or that it can be learned subconsciously. Surely, there is no basis for an Oral Diagnosis chromosome or gene. On the other hand, one must admit behavior patterns become established beneath the stream of consciousness.

It is true that the child comes to handle the dinner fork through pure reflex. This is so only because he is in frequent contact with eating utensils from infancy, because he is provided with ample opportunity to practice the act through need, and because the total pattern is basically quite simple. In much the same fashion, the child soon learns to dial the telephone. True enough, this pattern is established later in life, is somewhat more complex, and does not allow of as much practice as eating. And so the child *suffers,* as it were, as he learns the dialing technique. Any doubt that the learning process is painful can be dismissed by observing a child in action as he directs all of his attention to his little finger while biting his lip. Continuing on, correctly mixing cement is a bit more complex than dialing the

phone. It demands some knowledge of climate, concentrations of liquids and powders, and a sense of timing. Added to these factors is the problem of learning the technique much later in life and with less opportunity to practice. Thus, this pattern is still more difficult to learn.

There is little need to pursue this discussion of the hierarchy of motor acts. One can pass, step by step, through ever more complex reflex patterns. From a purely technical standpoint, one of the most difficult accomplishments is the playing of the piano. Even talented people, with a so-called *knack* for music, devote six to eight hours daily for years on end constantly practicing scales, harmonics, and counterpoint to develop finally a limited repertiore. Skipping all of the details, one can easily demonstrate that the diagnostic technique is to dentistry what piano playing is in its own sphere. Yet, do we in our curriculum put out the time and energy to train students to be oral diagnosticians? If one examines the time allotted for Oral Diagnosis, one must answer this question in the negative. Implicit in present day dental education is the concept that somehow, someway, the dentist will, without too much training, learn diagnosis.

Mention has already been made that a concrete didactic plan was proposed in 1935 in the report of the Curriculum Survey Committee[1] (p. 3). We are attempting to present here a *logical* lecture series in this report.

In order to eliminate note-taking in the classroom which normally slows the speaker, the student in past years has been provided with a mimeographed syllabus of the entire lecture series. In the last year, this material was published in book form.[61] The tenor of the course is clearly spelled out in the preface:

> To arrive at a diagnosis, the clinician follows the same procedure as a detective. He seeks every trace of available evidence and relies on the method most likely to provide significant clues. . . . It seems wise, in oral diagnosis, to begin with the over-all, or gross, examination of the patient. To proceed immediately with the oral examination is ineffectual; such a technique tends to limit the field and blur the periphery. After the gross evaluation has been made, the examiner may move closer, so the head and neck, and finally the oral cavity are brought into higher and more detailed focus.

The first lecture (p. 109) simply outlines the scope of the course, the definitions of Oral Diagnosis and Oral Medicine, the lecture plan, quiz system, major examination schedule, the operation of the clinic, and term paper requirement.

It can be noted in the lecture series outline that the *clinical* examination, for both teaching and administrative reasons, is divided into three parts: (1) *gross appraisal of the patient,* (2) *examination of the head and neck,* and (3) *examination of the oral cavity.*

These are the three major subdivisions of the clinical examination. It will be noted that, in this scheme, one starts with the gross, the over-all view and ends in the mouth with an appraisal of the teeth. Within each of these broad categories, there are specific observations which must be made as the examination progresses. One begins with the most obvious, least specific, easiest areas to appraise. Thus, the examiner notes the stature, then the gait, speech, age and sex, hands, history, personality, temperature, pulse, and blood pressure. Those trained in traditional diagnostic methods may question why history is included in the gross appraisal of the patient. The answer—purely for convenience. The diagnostician should envisage that, as the patient walks into the office, an appraisal of stature and gait can be made quickly. A few words of greeting should suffice to evaluate the speech. With the patient seated in the dental chair, the examiner may glance at the hands. Before continuing with the examination, it is desirable, convenient and helpful to hear the patient's story and evaluate the psychophysical nature of the patient. Not only does the history fit here in the suggested outline, but with the data so obtained, the clinician is better prepared to make sound observations and draw correct conclusions as the physical appraisal proceeds. The purpose of the course is to *spread out* and present in *slow motion* the thinking which should occur in the examiner *from the moment the patient walks into the office until the final decision is made as to the nature of the illness.*

In order to show in actual practice how this plan operates, let us analyze the first step in the clinical examination. The subject is *stature.* The aim of this lecture is to: (1) review the basic physiology of growth, (2) underscore the fact that much valuable information of stomatologic import can be derived from a momentary glance at the patient as he walks into the office, and (3) point out that oral problems may be associated with disturbances in stature. The student is instructed to read pages 303-305 in his textbook[61] *prior* to the lecture. To insure advance class preparation, a short ten-minute quiz is given at the start of the hour on the subject to be discussed. In this manner, one can be reasonably certain that the student arrives in the classroom with some previous knowledge of the subject. He there-

fore can better appreciate the discussion. By giving such quizzes at the start of each lecture period, the instructor obtains forty-three quiz scores in addition to a grade for the major examinations, term paper, and clinic performance. These quiz papers provide a fair index of the student's progress and the failings of the instruction from week to week.

After a ten-minute written quiz session, which may be true-false, matching, completion, or essay in type, the subject for the day is introduced with a consideration of the basic anatomy and physiology of the region under discussion. For example, the lecture on the lips is introduced with a five or ten minute discourse on the gross and microscopic features of the skin and mucosa of the lips, the muscles and vessels, the range of movement, and the diagnostic importance of the commissures in disease states. In the case of stature, the ten-minute *basic science* introduction deals with the physiology of growth as shown in the outline:

Stature
- Physiology of Growth
  - Endocrine Pattern
    - Hypophysis
    - Thyroid
    - Parathyroid
    - Gonads
    - Adrenal Cortex
  - Nutrition
  - Infectious Processes
- Alterations in Stature
  - *Supranormal Height*
    - Hormonal Disturbances
      - Hypophyseal Gigantism (p. 188)
      - Acromegalic Gigantism (p. 189)
  - *Subnormal Height*
    - Diseases Due to Biologic Agents
      - Tuberculosis (p. 30)
      - Congenital Syphilis (p. 33)
    - Hormonal Disturbances
      - Hypophyseal Dwarfism (p. 192)
      - Albright's Disease (p. 193)
      - Cretinism (p. 196)
      - Hyperparathyroidism (p. 199)
      - Juvenile Diabetes Mellitus (p. 202)
    - Developmental Disturbances
      - Cooley's Anemia (p. 214)
      - Osteogenesis Imperfecta (p. 218)

Achondroplasia (p. 221)
Albers-Schonberg Disease (p. 223)
Cleidocranial Dysostosis (p. 224)
Craniofacial Dysostosis (p. 225)
Hereditary Ectodermal Dysplasia (p. 227)
Congenital Heart Disease (p. 304)
Nutritional Disturbances
Rickets (p. 251)
Osteomalacia (p. 253)
Sprue (p. 254)
Emaciation (p. 260)
Metabolic Disorders
Hand-Schuller-Christian Disease (p. 289)
Miscellaneous Disorders
Mongolian Idiocy (p. 289)
Paget's Disease of Bone (p. 291)

In the final analysis, stature can either be normal or the individual may be unusually tall or short. During the lecture hour, these two pathologic possibilities are considered by showing slides of stomatologic cases with abnormal stature as one of the cardinal findings. Obviously, at this early stage of the course, the student is not too familiar with stomatologic diseases, let alone their statural signs. Consequently, in the textbook,[61] reference is made to appropriate pages (shown in the outline) where more detailed information can be obtained about the definition, pathologic physiology, clinical features, radiographic and laboratory findings of any of the disorders discussed in the outline. Thus, for example, should the student wish more information about hypophyseal gigantism, he has only to turn to p. 188.

The second lecture considers *gait*. Once again, the student is asked to read in advance the appropriate pages in the textbook (pp. 305-306). The tenor of the second lecture is to: (1) review the basic anatomy and physiology of gait, (2) underscore the fact that valuable information can be derived from a momentary glance at the patient as he walks into the office, and (3) point out that stomatologic disorders may be associated with alterations in locomotion.

Gait
Anatomy and Physiology of Gait
Basic Mechanisms
Voluntary Movement
The Stretch Reflex
Perception
The Cerebellum
Integration

Disorders of Gait

The Gait of Weakness

Any Severe Debilitating Disease (p. 306)

The Ataxic Gait

Diseases Due to Biologic Agents
Tabes Dorsalis (p. 33)
Diseases Due to Chemical Agents
Arsenism (p. 99)
Plumbism (p. 107)
Aniline Intoxication (p. 109)
Aplastic Anemia (p. 113)
Neoplasms
Leukemia (p. 162)
Hormonal Disturbances
Diabetes Mellitus (p. 202)
Nutritional Disturbances
Niacin Deficiency (p. 248)
Pernicious Anemia (p. 255)
Reactions to Stress
Rheumatic Fever (p. 273)

The Spastic Gait

Cerebrovascular Accident (p. 305)

The Waddling Gait

Hormonal Disturbances
Cretinism (p. 196)
Developmental Disturbances
Achondroplasia (p. 221)
Nutritional Disturbances
Rickets (p. 251)

The decision as to whether the gait is pathologic is quite simple. For stomatologic purposes, abnormal gait is either: (1) the gait of weakness, (2) ataxic, (3) spastic, or (4) waddling. It can be observed that syphilis (congenital lues and tabes dorsalis), diabetes mellitus, cretinism, achondroplasia, and rickets are characterized by changes in stature and gait (see above). Thus, the student soon learns that a disease may be clinically apparent through many symptoms and signs. The student also soon discovers that making a diagnostic judgment is like dialing the telephone. One must dial every number and in order else there is no connection. Similarly, one must take advantage of every possible clue. This point is made in the textbook[61] and in the introductory lecture.

(To Be Concluded in September Issue)

Editorial

THE MARCH ISSUE of our JOURNAL contained an editorial on the activities of the College. It suggested that the ability of the College to expand its services in the advancement of the higher ideals of Dentistry can be increased only in proportion to the expansion of its resources. Any increase in the resources of the College must come from its members and consequently an increase in dues has been suggested. If the College is to fulfill the recommendations of its committees, additional funds must be secured.

The College has 2,356 dues-paying members and several who have been excused from dues by the Board of Regents for reasons such as poor health or financial reverses. The fact that there may be conditions which make the payment of dues a hardship, strongly suggests that the College provide some form of life-membership.

Eligibility to Fellowship in the College requires the demonstration of contributions to the Profession. The College by its nature has few members under 40 years of age, but is composed largely of men in middle or later life. Based upon the present membership, about 50 members can be expected to be lost by death each year. Should a life-membership classification be established, there would be some further reduction in the dues-paying membership.

It has been proposed that a life-membership be granted upon attaining the age of 75 years. This would require an amendment to the By-laws, which will be introduced at the Dallas meeting. Any reclassification

of membership or the establishment of a life-membership places further emphasis upon the reconsideration of dues. If the dues were increased 5 dollars a year, to 20 dollars, it would be possible to provide for life-membership and have a small surplus in 1959. A greater surplus would occur in 1960 and the following years because fewer of our present members would become eligible to life-membership.

While it is desirable to provide some form of life-membership, it is just as essential that some increase in resources be found to allow the College to expand its activities.

The College is operating on a balanced budget. It is supporting as many of the recommendations of its various committees as its finances will allow. Some recommendations have been approved in principle but not activated because of inadequate funds.

The objectives of the College are to promote and sustain those things which will develop dentistry to its full potential as a health service. Let us support these objectives.

Some amendments to the By-laws will be proposed at the next meeting of the College. In the interest of the things for which the College stands, I request your support of the principle of expansion of the College activities.

THOMAS J. HILL, *President*

Report of the Committee on Financial Aid to Education*

THE COMMITTEE ON Financial Aid to Dental Education did not hold a meeting this year, but devoted the time to the accumulation of plans and patterns used by various schools and organizations in raising funds for one purpose or another.

The plans of the committee as previously formulated are to develop a brochure that will outline numerous methods that have been used for raising funds. The accumulation of information, therefore, is a step toward this end.

The returns from the questionnaire inquiries reveal that there are two basic areas in the educational program that need support:

1. The institutions themselves to meet deficit spending
2. Funds to aid the dental student to meet the increasing costs of dental education

In the first area, the institutions themselves need basic funds that will support them year after year. In other words, endowment funds, the interest from which will supply a cushion to meet annual needs beyond the income from tuition and clinic fees.

Unfortunately, dental education has not attracted funds from philanthropic sources as other health services have. The total amount of endowment funds for dental education now existing amount to only 8.6 millions of dollars, whereas medicine has attracted 210 millions.

The Secretary of the College is hopeful in the belief that the Survey of Dentistry now in development will focus the light on dentistry's needs in this direction and attract the foundations and philanthropists to support this field.

The Fund for Dental Education, launched a short time ago by the American Association of Dental Schools, also offers hope in the direction of aid, but it must first accumulate funds before it can distribute them. One of the purposes of the Committee on Financial Aid is to suggest plans that will aid in the development of this fund, possibly through the aid of the Sections of the College. This will not be on the basis of funds from College members them-

* Presented November 3, 1957 at Miami Beach, Florida.

selves, but rather group efforts in Section areas to discover substantial funds possibly available in the area.

As an immediate suggestion to the schools for a help-yourself effort, the manuscripts presented at the morning session of the Congress on Dental Education and Licensure in Chicago last February, were published in the June JOURNAL of the College and reprints are being distributed to all the dental schools in the United States and Canada with the suggestion that they be distributed among faculty members and studied, to determine if any of the suggestions fitted the school or the departments. These papers dealt with funds and methods of financing, available to dental education from various sources.

The second category where funds are needed is, as previously stated, the area of the dental student. The survey returns indicated that the demand for loan funds was becoming more and more in evidence. While scholarship and fellowship funds were not so much in evidence in the returns, it seems logical that increasing costs, especially higher tuition fees, could play an important and in many instances, a decisive part in the decision of an otherwise highly desirable student not to enter dentistry. Scholarship funds could prevent the loss of such a deserving person to our profession.

This, then, is a progress report. The Committee hopes to be able to outline the numerous plans for aid to dental education for the brochure during the coming year and will appreciate any suggestions from the Board of Regents for its guidance.

Faithfully submitted,

LESTER W. BURKET, *Chairman*
DOYLE J. SMITH, *Vice-Chairman*
CLEMENS V. RAULT
WM. DWIGHT CURTIS
RAYMOND J. NAGLE

This report was informative and carried no specific recommendations, the brochure having previously been approved.

Report of Recruitment Committee*

In 1956 the Recruitment Committee sent out two questionnaires. One was sent to the dental colleges in the United States and in Canada. It asked four basic questions:

1. Do you find good applications for the Study of Dentistry are plentiful?
2. Should effort be made to interest desirable persons?
3. Should guidance plans be developed?
4. Would motivation studies help in selection?

Replies were received from 35 dental colleges in the United States and four in Canada. About half the schools indicate that good applications for the study of dentistry are not plentiful. With a trend toward more dental schools, this could become a serious matter.

Three-fourths of the schools feel that an effort should be made to interest desirable persons in a career in dentistry. They agree that guidance plans should be developed at both High School and College levels. They also agree that studies in motivation for the practice of dentistry would be helpful not only in the development of plans for guidance to dentistry, but also in the elimination of undesirable persons from the dental field.

The second questionnaire was sent to 474 districts in the 48 states, Alaska, Hawaii and Puerto Rico. Replies were received from 254 districts. This questionnaire explored the interest in a workshop on use of the Dental Hygienist, Assistant, Technician and Laboratory service.

Interest in a workshop on the use of auxiliary services was manifest by nearly half of the organizations.

While most of the areas expressed satisfaction over the availability of auxiliary personnel, hygienists, assistants, technicians and laboratory service, there were still many who answered in the negative, indicating a rather heavy urgent need.

These surveys certainly justify the existence of a recruitment committee and indicate the need for expanded activity.

As we see this problem today this activity must be coordinated and carried on at several levels. On the National level, the College Recruitment Committee must conduct certain specific projects, the results of which will be of value to the Sections in their activity.

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* Presented November 3, 1957 at Miami Beach, Florida.

Then the Sections must establish a program that will carry this activity to the community level for it is here that real beneficial, productive action must take place. In a nutshell, this means that if we are ever to have a recruitment program of any real value it will require the *interest and action* of every individual College member in his home community. However, he must be given the tools with which to work by his Section and the College Recruitment Committee.

Actually, to be most effective our program must involve *all* dentists. Therefore, it behooves us to stimulate interest in each state dental association in the problem. We must try to get some specific action projected down to the district level. Perhaps instigate a state committee composed of a dentist from each district who in turn would serve as chairman of a district committee to work on the problem at the "grass roots" level.

In each district the problem will be somewhat different, but there are certain basic facts to be recognized.

1. We must interest youth at the *High School* level. Preferably we should reach the tenth or eleventh grade student. We cannot wait until the last week of his senior year to approach him about a professional career. By this time the better students have selected their career.
2. We must reach the youth at *College* level. At this level we must reach the more mature student, so our approach must be entirely different than to the high school student. To reach these youths, we have three basic approaches:
   A. Personal contact
   B. Printed material
   C. Movies

Personal Contact by a well-known practicing dentist in the area is unquestionably our best recruitment tool. However, it is the responsibility of our College Recruitment Committee to see that proper up-to-date facts and figures are available to these dentists. The best of operators can not produce without proper and efficient instruments.

Printed Materials used in a recruitment program should be published by and carry the approval of the Education Council of the American Dental Association. It is recommended that the College Recruitment Committee negotiate an agreement with the ADA Education Council to approve, publish, publicize and distribute pamphlets suitable for use at High School and College level. I feel sure the Council would be pleased to have us prepare the material

for such pamphlets and would be anxious to collaborate with us on such a worthy project.

Movies—Last year at Atlantic City this committee reviewed our film on Student Recruitment. All agreed that Dr. Ray and his assistants certainly did a wonderful job on this film. There were a few minor constructive suggestions which were filed with Dr. Brandhorst. Because of the excellent response to this film it is felt that others are definitely needed. It is recommended that new movies be considered along the following lines:

a. To show the prospective dental students just what classes, labs, clinics, and other training he will go through from the time he enters dental college training until he graduates from dental college.

b. We feel that from personal observation in his home community the average student is aware of his potential in private practice. However, a film is needed to show the possibilities in research, teaching, dental administration, local, state and U. S. Public Health Services.

c. Another possible film could be planned to show some remarkable clinical results of Oral Surgery, Orthodontics, Crown and Bridge, Prosthetics, Oral Pathology, etc. This film would be directed to show the benefits of dentistry, physiological and health service angle, eliminating the idea that all dentistry is just oral mechanics. In other words, there is some of the spectacular and glamor in dentistry just as in medicine. It could be very effective if properly shown.

At the College level we feel the pre-dental student needs additional assistance from us. Although he has already selected dentistry as his career, we feel he needs constant reassuring and encouraging. To accomplish this, we recommend the establishment of a national pre-dental fraternity, which could expand to have chapters in practically all colleges that enroll sufficient pre-dental students. (This idea will be developed more in the oral report.)

We would like to suggest that as the Sections assume more interest in this problem that they contact the Deans of every dental school in their area to become more familiar with their needs in the way of student recruitment and work closely with them in attempting to aid them in their individual problems.

It is our opinion that the most important specific project the College Recruitment Committee could carry on at this time on a national level is a *study in motivation.*

The basic working hypothesis for this study is that success in dental school and the practice of dentistry transcend the possession of necessary intellectual attributes, scientific knowledge and dexterity used in the practice of dentistry and that an added factor, which

could help the dental profession might be found in the area of motivation.

I believe Dr. Wendell Wylie first made this Committee aware of the value of a study in motivation. As Chairman in 1954, he made available to us preliminary results of a survey made at the University of California. This study was conducted by a representative from each of the professional schools, and was designed to study motivation factors influencing students in the health sciences. In all, 1569 students were involved. Twenty-eight of them being students of dental hygiene and 259 of them being students of dentistry. In his summary Dr. Wylie states "The data suggests that the profession of dentistry can be SOLD to young people if the attempt is made. There is also evidence that things are getting better and that we have friends where we most want to have them. Because there is room for this optimism and because there is evidence that to date our efforts have been insufficient, these data support the contention that dentistry ought to get out and hustle. If the dentists will do this, the results should be rewarding."

During this year, Dr. J. Wallace Forbes has been conducting the basic ground work so necessary for a study of this type. It is his plan that the project of study would be undertaken by the Temple University School of Dentistry and, or, the Testing Bureau, Department of Psychology, Temple University, in cooperation with the American College of Dentists. The cooperative study would be divided into two parts. (1) The development of the motivation indicator questionnaire. The time required for this would be one year. Phase one to be completed by September, 1957. (2) A study of various groups for selected dental schools and professional groups as a means of establishing the effectiveness of the instrument. The completion date should be September, 1958.

An instrument of the type proposed in the study would serve a two-fold purpose: (1) it could help to improve present procedures in the selection of dental school students, and (2) it would focus attention on those non-intellectural areas in which attitudinal orientation in the best direction for the profession could be emphasized.

To assist in the financing of this important project, Dr. Forbes hopes to receive a research grant from the Psychology Department of Temple University. There is also the possibility of Federal funds for such a project and he is checking this possibility.

RECOMMENDATIONS

1. It is recommended that new motion picture films be developed along the following lines:

a. To show the prospective student just what classes, labs, clinics, and other training he will go through from the time that he enters dental training to graduation.

b. A film showing the opportunities in dentistry in fields other than general practice—research, teaching, dental administration, Public Health Service, etc.

2. The establishment of a National pre-dental fraternity (with local chapters) to unify the interests of pre-dental students.

3. That definite plans be developed for further studies in motivation for a career in dentistry.

FRANK P. BOWYER, JR., *Chairman*
J. WALLACE FORBES, *Vice-Chairman*
FRANK J. HOUGHTON
DREXEL A. BOYD
L. WALTER BROWN, JR.

Action by Board of Regents: General approval of recommendations, with request for detailed information as to costs and therefore subject to further consideration.

Local organization of pre-dental student groups was approved in principle but not at a national level.

CALENDAR OF MEETINGS

CONVOCATIONS

November 9, 1958, Dallas, Texas

September 13, 1959, New York, N. Y.

October 16, 1960, Los Angeles, Calif.

Ethics in Dental Practice*

DOMINIC BARRESE
New Orleans, La.

"He who knows dentistry alone does not know dentistry." . . . Anon.

EVERY PROFESSION has its code of ethics. In a recent report the American Dental Association referred to ethics as the "bedrock" on which a profession or civilization is founded.[1] The word "ethics" as applied to professional life is hard to define, since it is more inclusive and far reaching than any definition could possibly convey. It holds within it the professional man's responsibility to his fellow man and at the same time involves the highest possible application of skill and knowledge. It can only partially be reduced to a written code, since it includes a mental or spiritual attitude based on honesty, integrity, unselfishness and service to others.[2]

Ethical principles in the practice of dentistry cannot be decided upon or devised on the spur of the moment but have been handed down to us as a precious heritage.[3] While the broad principles of honesty and unselfishness and service remain the same, the application of these principles has been constantly modified with the changing times. It is with the particulars of application that this paper is primarily concerned, but all of these applications can be summed up in a general way in the imperishable rule: "Whatsoever ye would men should do to you, do ye even so to them."

Dentistry first achieved the stature of a profession in the United States when "it acquired the three unfailing characteristics of a profession: education beyond the usual level, the primary duty of service to the public, and the right to self-government."[4] Insofar as education beyond the usual level is concerned, the dentist has the obligation of keeping posted on the latest trends in technics, dental views and procedures. His education never ceases but continues throughout his professional life. He has the right to win for himself and his family the things that will enable them to take their rightful place in society. However, he must keep in mind that the public comes first, even before personal gains. The third criterion

* Winning essay in the Second Annual Writing Award Competition sponsored by the College. Mr. Barrese is a Senior Student at Loyola University, School of Dentistry, New Orleans, Louisiana.

of a profession involves every profession's right to regulate itself and to determine and judge its own members. This is achieved largely through professional societies and associations.[5] Anyone who practices dentistry assumes an obligation which must be accepted and fulfilled willingly. This obligation is always binding, but its fulfillment may vary according to the times.

Looking at the problem of ethics in dental practice a little more closely, we see that it is concerned not only with the broad interests of the individual dentist in all his relationships, but also with those of the patient, the profession and the public.[6] For purposes of our discussion the obligations of the dentist will be considered under the following headings: (1) Obligations to the profession; (2) Obligations to other professional men; (3) Obligations to the patients; and (4) Obligations to the public in general.

Obligations to the Profession

The honor and integrity of the dental profession must be maintained by all its members. This means that the dentist's conduct must be above reproach at all times in his office, at home, and in all his social activities. This is not only true of any contacts he may make with his professional associates, but it is applicable to any contacts made with other individuals.[7] His conduct must be such that it never brings any discredit to him nor to the profession at large.

Insofar as his practice is concerned, every dentist should do the best dentistry he is capable of doing, in order to keep up the high standards of the profession. This is only common sense and helps in attaining and improving good public relations. The fee charged for services rendered should be just and should take into consideration a poorer patient's limited ability to pay.[8]

The dentist must give wholehearted support to any dental society striving to advance the dental profession, be it on a local, state or national level. He must be ready to assume any office to which he may be elected or any duties which may be assigned to him. This will, of course, require attendance at meetings and participation in business as well as clinical sessions.[9]

The dentist of today is cognizant of the immense storehouse of information that has been made available to him by those who have

preceded him. He should show appreciation of what has been passed on to him by teachers and clinicians and should, in turn, contribute to this vast amount of knowledge and art of his chosen profession. This must be done without thought as to personal gain.[10] He should gladly accept the responsibility of training others for the profession.[11]

Obligations to Other Professional Men

Just as the dentist must never destroy or lessen the patient's confidence in his own ability and integrity, so must he avoid destroying the patient's respect for professional confreres, either directly or by implication.[12] He must strive to strengthen and improve the profession at all times, so as to elevate it in the eyes of the public.

The dentist must cooperate with others in his profession and avoid such conduct as would give him an unfair advantage over other dentists (e.g., advertising, large signs, or letterheads, undisclosed secrets pertaining to improved methods or technics, false claims, unjust criticism of another dentist's skill).[13]

If a dentist is performing emergency work on a patient of a fellow practitioner, he must keep in mind the extreme delicacy of his position. In general, it is best to do the simplest of repairs with instructions to the patient to see his own dentist at his earliest opportunity. He must never betray his colleagues' confidence in him.[14]

Obligations to the Patients

In addition to caring for a patient's dental needs, it behooves the dentist to give some thought to the patient's needs as a person.[15] His fees should be such that the patient can afford to pay them, but he must not prostitute dentistry by minimizing the quality of dentistry rendered. He must sympathize with the patient when the patient is distressed; he must be tolerant when he is unreasonable and difficult; he must educate him in the things of which he is ignorant; and he must be ready to praise him when he is cooperative.[16] He should not ignore the fact that a patient's nervous equilibrium may have been affected by some recent experience, as, for example, a death in the family.[17] This attention to non-dental factors will create an atmosphere of confidence and trust between the patient and the doctor.[18] Things told in confidence must remain in confidence. The dentist should never try to impress his

patient by suggesting that he is uniquely qualified or that he possesses knowledge that other dentists lack.[19] This creates a false sense of security and can result in bitter ramifications.

Obligations to the Public in General

It is evident that the dentist has a greater responsibility than the rendering of dental services. He should be interested in civic matters, and he should take an active part in the affairs of his community.[20]

The dentist should give additional consideration to public health service and other community services for which he is suited, as well as to the personal welfare of his family and himself. He must be able to strike a happy medium between these two opposing claims.[21] His relationship with the public in general should be one that transcends all restricted interests and selfish motives.[22]

Ethics—Past, Present and Future

The practice of dentistry has changed with the changing times. Modern practice with its heavy patient traffic no longer permits a close doctor-patient relationship. The public is conscious of the fact that something has been lost in this inevitable process. This is unfortunate, since it tends to weaken public support. The prevailing tendency in an age of specialization is to send a child to a pedodontist, an orthodontist, an oral surgeon and so on, so that the child has been in the hands of many dentists before maturity. There was a time when people would say with pride "Our family physician," or "Our family dentist," but this is a rarity today. We reply with allusions to progress and superior service. No matter how it is disguised, the fact remains that the doctor-patient relationships of today lack the warmth and friendliness of those in the past. Dentistry, like medicine, is losing its warmth. Perhaps as one writer has suggested, less haste is necessary, if some of this warmth is to be restored.[23] Most important, though, is the absolute necessity of maintaining the same high ethical standards that have won public respect and affection for dentistry in earlier times.

Summary

Professional ethics go deeper than a written code:[24] the spirit and not the letter of obligation must be the professional man's

guide of conduct.[25] No one should practice dentistry who is not ready to shoulder his obligation willingly or who is not favorably disposed toward the underlying principles of conscientious service and justice. The dentist has obligations (1) to his profession, (2) to other professional men, (3) to the patient, and (4) to the public in general, but these obligations should be undertaken willingly, not grudgingly.

As it was pointed out, ethics extend beyond the confines of the dental office and into the community.[26] Every professional man must keep in mind that in his daily practice he contributes to the welfare of the patient, to the service of the public and to the prestige or standing of the profession.[27] The human element is always present.[28] In this age of specialization it is difficult to find the warmth and friendliness that existed many years ago. We must become cautious about the modern trend towards speed, and must avoid wherever possible the loss of the human touch in patient-dentist relationships. We must bear in mind that there is no short cut to effective human relations.[29]

The future of dentistry will be determined by the needs of the public and not by the needs of the dentist. Dentistry belongs to the public, and a wise dentist will give careful thought and consideration to the demands of the public.[30] Unless there is a genuine effort on the part of every dentist, dentistry will not continue to occupy the position and high esteem it now claims.[31] Professional men will do well to keep the following lines from John Ruskin foremost in their minds at all times:

> When we build, let us think that we build forever. Let it not be for present delight, nor for present use alone.
>
> Let it be such work that our descendants shall thank us for, and let us think as we lay stone on stone that a time is to come when those stones shall be held sacred because our hands have touched them.
>
> And men shall say as they look on the labor and wrought substance of them, "See, this our fathers did."[32]

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Public Attitude Toward Dentistry

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WILLIAM J. UPDEGRAVE, D.D.S.**
JOSEPH I. SHAFFER†

THE ATTITUDES OF the general population toward dentistry are of special concern to those individuals who carry the responsibility for the problems confronting the dental profession. This is true not only for those working directly in public relations and for educators responsible for the professional training of dental students, but also for the practicing dentist. Furthermore, the United States Bureau of the Census' prediction of a 220 million population by 1975 makes it seem urgent that a unified national program be undertaken by the dental profession in the near future to solve the problems caused by a rapidly expanding population and to insure continued high standards of dental care for our citizens.

The general purpose of this attitude survey was to provide a pilot base for a possible nationwide survey of attitudes towards dentistry; its more specific aims were to furnish some possible aid to the profession in solving certain of its immediate and long range problems, such as public attitudes toward fees, the acceptance of dental practices, and other factors.

This study was sponsored by the Philadelphia Section of the American College of Dentists, Temple University School of Dentistry, and the Testing Bureau, Department of Psychology, Temple University as a possible contribution to any eventual study on a broader scale and was made possible by the cooperation of Dean Gerald D. Timmons of the Temple University School of Dentistry.

PROCEDURES FOR STUDY

This study of opinions and attitudes toward dentistry was based upon interviews of 1,000 subjects by means of an interview questionnaire. The items for the interview questionnaire were submitted by the Philadelphia Section of the American College of Dentists

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and evaluated by the Testing Bureau staff. There were forty-six items finally selected for inclusion in the questionnaire.

One hundred and thirty-one members of the Junior Class of the Temple University School of Dentistry served as interviewers for the survey taken during the 1957 Easter vacation. The students received their instructions from Dean Gerald D. Timmons, who stressed the importance of the survey for the dental profession and the necessity for a professional attitude toward the interview, and Dr. Harold C. Reppert, who explained interviewing techniques and methods to be used in this survey. The students were instructed to obtain ten interviews from five occupational groups: one from the professional group, three from skilled, semi-skilled, and unskilled, one from secretarial-clerical, and one from self-employed, and four from housewives. These five groups were the basis of the random stratified sample and were selected from a general classification of occupations.

The problems confronting the dental profession as sampled were classified into four general areas: (1) Business practices of the dentist; (2) Public attitudes toward the professional competence of the dentist; (3) Attitudes toward the dental profession other than its professional aspects; and (4) Dental habits of the general public.

Population Statistics

The 1,000 persons interviewed by the Temple University junior class dental students were composed of 45.8 per cent males and 54.2 per cent females. The median age of the group was 36 years, with the majority (58 per cent) ranging from 20 to 40 years. The persons interviewed were selected according to the previously stated five occupational groups. (Table 1.)

Limitations of Study

All interpretations must be made in the light of the above population statistics and in view of the results obtained by using dental students as interviewers. More specifically, the questions that may be raised are: To what extent did the dental students select friends as respondents? Do respondents selected from a highly urban population have biases in favor of the dental profession? Were the questions couched in the impartial matter-of-fact tone so necessary for an unbiased interview? These questions can only be answered

TABLE 1

DISTRIBUTION OF THE SAMPLE INTERVIEWED, BY OCCUPATION

Characteristics	*Percentages of Occupational Groups**					
	Professional	*Skilled Semi-Skilled Unskilled*	*Secretarial-Clerical*	*Self-Employed*	*Housewife*	*Total*
Number Interviewed	100	300	100	100	400	1,000
Sex	100.0	100.0	100.0	100.0	100.0	100.0
Male	82	87	22	94	0	46
Female	18	13	78	6	100	54
Age	100.0	100.0	100.0	100.0	100.0	100.0
15-20	1	5	9	0	1	3
20-25	15	18	37	2	10	15
25-30	15	20	16	13	16	17
30-40	27	23	21	22	30	26
Over 40	42	35	17	63	43	40
Residence—City	100.0	100.0	100.0	100.0	100.0	100.0
Philadelphia	29	35	37	31	32	33
Other cities over 1,000,000	5	3	3	2	2	3
Cities between 100,000 and 1,000,000	18	20	17	23	19	19
Towns between 10,000 and 100,000	31	25	27	30	30	28
Towns under 10,000	17	17	16	14	17	17
Residence—State	100.0	100.0	100.0	100.0	100.0	100.0
Pennsylvania	62	61	63	57	63	61
New Jersey	22	23	23	26	26	24
New York	8	5	8	6	6	7
Maine, Vermont	2	2	1	1	1	1
Massachusetts, Connecticut	4	5	0	2	3	3
Rhode Island, New Hampshire	1	2	4	8	1	3
Other	0	3	1	0	0	1

* Percentages may not add to 100.0 because of rounding.

by further validations against a random sample of interviewed persons obtained by professional interviewers. Furthermore, in terms of this study, a wider sampling is needed from age groups more comparable to census norms and from a more comprehensive, less urban geographic distribution of subjects.

Nevertheless, despite the aforementioned limitations, the practicing dentist should be able to glean a better understanding of the attitudes of his patients toward himself and his profession from this survey.

Results and Discussion

The items in the four general classifications compose about one-half of the questionnaire, and they can be discussed best in terms of group differences within the general classification. For the most part, only the more significant divergences from the percentages of the total group will be discussed.

Business Practices of Dentists

The data show that 78.9 per cent of the total group were reminded of the necessity for periodic checkups by their dentists, a question rated as the most significant in the area of "business practices" by the Testing Bureau staff. (In all probability this is significantly higher than might have been obtained from a survey of the medical profession.) There are only minor group differences. Some 85 per cent of the secretarial-clerical and 75 per cent of the self-employed groups responded in the affirmative. Of the population, 18.5 per cent were not informed of the necessity for checkups by their dentists.

A further study should be made on the effectiveness of such reminders on the number of checkups in, let us say, a five-year period.

There was a marked difference reported between the professional and self-employed groups in response to the question, "Do you have difficulty in getting an appointment with your dentist?" About 28 per cent of the self-employed group reported difficulty, while only 14 per cent of the professional group answered the question, "yes." Over-all, 78.6 per cent of the total group had no difficulty in getting an appointment. For those who reported difficulty (182 persons), six per cent obviously felt less than one week was too long a period to wait. An interesting insight on the demands made of a dentist shows 36 per cent reported one to two weeks, six per cent three to

four weeks, 16 per cent more than a month, and 17 per cent were uncertain in getting an appointment.

Of the total population, 85.6 per cent found their dentist's office to be conveniently located; there was little difference in responses to this question among the occupational groups.

It should be interesting to determine what percentage of the 14.4 per cent who found their dentist's office inconveniently located selected their dentist in preference to one more conveniently located.

The professional group had the highest percentage of referrals for specialized work, 35 per cent; the self-employed, 31 per cent. The mean of 28.7 per cent for the total group is an accurate estimate for the other three groups. According to the population in this study, 71 per cent received all dental care from their chosen dentists.

Of the group surveyed by dental students, 87.6 per cent found the waiting room of their dentist's office a pleasant place. However, the 84 per cent of the skilled, semi-skilled, and unskilled group and 91 per cent of the professional group represent the extreme deviations on the rating of this aspect of business practices. Some 8.6 per cent went to a dentist even though they did not find the waiting room a pleasant one.

There was little deviation among the five occupational groups in response to the question, "Is your dentist prompt in keeping appointments?" The professional group reported that he was in 93 per cent of the cases, the high, while the four other groups were adequately represented by the mean of 87 per cent. Only 10.8 per cent reported that their dentists were not prompt in keeping appointments.

Among the respondents, 65.2 per cent felt that the charges made by their dentists were moderate, 21 per cent considered them high, and 8.2 per cent thought them low. The reported percentages were descriptive of all occupational groups. If the responses to this questionnaire are not biased, then it should be evident that the public, as represented by the survey groups, has fairly consistent opinions about dental charges, and, quite possibly, this is a reflection of acceptable standardization of fees in the profession. (See Table 2.)

The Professional Competence of Dentists

It must be remembered that the responses in this area reflect attitudes and not qualified opinions. There are probably few dentists who have not had their patients criticize their competence, and the

six questions in this classification should be considered as sensitive areas where such criticisms are likely to occur.

Seventy-four per cent of the group interviewed believed that their dentists use the most modern techniques, while 16.8 per cent answered, "don't know." Only 7.5 per cent answered, "no." It should be noted that a "don't know" answer is not necessarily a criticism of the profession. There were considerable differences among the groups. Some 19 per cent of the skilled, semi-skilled, and unskilled groups and 8 per cent of the professional group replied, "don't know." (See Table 3.)

Subsequently, the 256 persons answering other than "yes" to

TABLE 2
PERCENTAGE OF TOTAL RESPONSE TO THOSE QUESTIONS RATED AS INDICATING ATTITUDES TOWARD "THE BUSINESS PRACTICES OF DENTISTS"
(N=1,000)

Interview Questions	*Yes (1)*	*No (2)*	*Don't Know (3)*	*No Answer (4)*	*Other (5)*
Does your dentist remind you of the necessity of periodic checkups?					
Do you have difficulty in getting an appointment with your dentist?	19.2	78.6	0.8	1.1	0.3
Is your dentist's office conveniently located?	85.6	13.1	0.0	1.0	0.2
Has your dentist ever referred you to another dentist for specialized work?	28.7	69.5	0.0	1.8	0.0
Is the waiting room of your dentist's office a pleasant place?	87.6	8.6	0.8	2.2	0.8
Do your consider the charges made by your dentist as being: (1) high; (2) moderate; (3) low; (4) don't know; (5) no answer*	21.0	65.2	8.2	4.2	1.4

* Responses are distributed, by percentages, in the appropriately numbered columns.

this question were asked why they didn't believe their dentists used the most modern techniques. Forty-three per cent didn't know, 24 per cent believed that equipment was used incorrectly for they suffered extreme discomfort, 19 per cent felt their dentists used outdated equipment, and 14 per cent believed their dentists were not interested in modern techniques. There were many variations among the five occupational groups. Some 29 per cent of the skilled, semi-skilled, and unskilled group felt their dentists used outdated equipment, while only 13 per cent of the professional group be-

TABLE 3
PERCENTAGE OF TOTAL RESPONSE TO THOSE QUESTIONS RATED AS INDICATING ATTITUDES TOWARD "THE PROFESSIONAL COMPETENCE OF DENTISTS"
(N=1,000)

Interview Questions	*Yes (1)*	*No (2)*	*Don't Know (3)*	*No Answer (4)*	*Other (5)*
Do you believe that your dentist uses the most modern techniques?	74.0	7.5	16.8	1.0	0.3
Have you ever been dissatisfied with the dental care you have received?	20.7	77.8	1.0	0.4	0.1
Is your dentist one of the best in the dental field?	60.5	8.0	27.9	2.8	0.8
Do you have confidence in your dentist?	93.4	2.5	2.2	1.6	0.3
Did you feel that your dentist was at fault when you suffered pain or extreme discomfort?	16.4	55.3	21.6	1.7	4.9
Is the equipment used by your dentist: (1) quite modern; (2) fairly recent; (3) rather old; (4) don't know; (5) no answer.*	40.1	42.4	7.6	8.8	1.1

* Responses are distributed, by percentages, in the appropriately numbered columns.

lieved this to be true. On the other hand, 60 per cent of the professional group gave a "don't know" or "no reply" response as compared with 23 per cent for the secretarial-clerical group. It may be that the professional group believes that a question such as this requires a competent anthority to answer properly. Undoubtedly, the general public does not possess objective criteria in terms of accepted professional standards with which to judge dentists on this question, but the respondents did express personal feelings to the interviewers.

Of the interviewed population, 20.7 per cent were dissatisfied at some time or other with the dental care they had received. However, only 12 per cent of the professional group reported dissatisfaction. Possible interpretations of these responses are of special interest to the profession. This result may represent one of the biases to be found in a study of this type. Another interpretation of this is that professional people select the best practitioners in the field, or that they are more aware of the technical problems of the dentist.

Those who reported dissatisfaction (207) showed interesting group divergences. Fifteen per cent of this group complained about the work being painful (0 per cent of the professional group and 28 per cent of the self-employed group). Poor workmanship, such as fillings falling out, was reported by 62.8 per cent (83 per cent of the professional group and 22 per cent of the self-employed group).

Some 60.5 per cent of the respondents felt their dentists were among the best in the field. The range of opinion on this question was from 73 per cent of the professional group to 52 per cent of the skilled, semi-skilled, and unskilled groups. However, only 8 per cent definitely stated that their dentists were not among the best in the field.

Confidence in their dentists was reported by 93.4 per cent of the groups. On this point the response of 98 per cent of the professional group represented the high. It may be that the skilled, semi-skilled, and unskilled (91 per cent with confidence) group has set lower standards and has less confidence in dental care itself. Significantly, only 2.5 per cent of these occupational groups did not have confidence in their dentists. For all groups interviewed in this survey the results on this question gave an indication of an excellent attitude toward dentists.

Of the group studied, 33 per cent reported suffering pain or ex-

treme discomfort during dental treatment. Of the group so reporting, 16.4 per cent felt that the dentist was at fault when pain or extreme discomfort was felt. On the other hand, 68 per cent of the professional group felt the dentists were not at fault when they suffered pain as compared with the mean of 55.3 per cent for the total group who thought the dentist was not at fault.

Less than half (40.1 per cent) felt the equipment used by their dentists was quite modern, 42.4 per cent reported the equipment as being fairly recent, while only 7.6 per cent looked upon their dentists' equipment as rather old. Some 9.9 per cent did not wish to pass judgment on this question. As might be expected, the professional group reported the best equipment, while the poorest rating was given by the skilled group.

An Evaluation of the Dental Profession: Non-Professional Aspects

Among the groups studied, 92.5 per cent reported liking their dentists as persons, while 3 per cent did not. Some 4.5 per cent gave answers which could not be tabulated from the reported interviews. (See Table 4.)

Some 78.2 per cent considered dentists as being among the leading professional people of their community. There was little variation among the five occupations in the response to this question.

When asked about their dentists' approach to community affairs, 52 per cent considered them active. Again there was an interesting group divergence. Some 62 per cent of the professional group but only 39 per cent of the skilled, semi-skilled, and unskilled groups replied in the affirmative to this question. Only 8.6 per cent did not feel that dentists were active in community affairs. It might be interesting to know what sort of community affairs the respondent had in mind. All in all, there was little difference of opinion on these questions and the reported percentages for the total are representative of those for all of the occupational groups.

Among the respondents, 17 per cent felt that they might like to be dentists; 25.7 per cent from the skilled, semi-skilled, and unskilled groups, but only 8 per cent from among the housewives. On the other hand, 71.9 per cent of those interviewed reported no desire to be a dentist.

Medicine was preferred to dentistry as a profession by the respond-

TABLE 4
PERCENTAGE OF TOTAL RESPONSE TO THOSE QUESTIONS RATED AS INDICATING ATTITUDES TOWARD "AN EVALUATION OF THE DENTAL PROFESSION: NON-PROFESSIONAL ASPECTS"
(N=1,000)

Interview Questions	*Yes (1)*	*No (2)*	*Don't Know (3)*	*No Answer (4)*	*Other (5)*
Do you like your dentist as a person?	92.5	3.0	1.9	2.5	0.1
Are dentists regarded as being among the leading professional people of your community?	78.2	4.6	16.5	0.7	0.0
Are dentists active in your community's affairs?	52.0	8.6	38.6	0.6	0.1
Would you like to be a dentist?	17.0	71.9	5.6	5.1	0.4
If you had the opportunity of becoming a dentist or a physician, which would you choose? (1) dentist; (2) physician; (3) neither; (4) don't know; (5) no answer*	22.3	32.3	35.4	3.2	1.8

* Responses are distributed, by percentages, in the appropriately numbered columns.

ents to this survey; however, the percentages were by no means overwhelming. The distribution showed that 22.3 per cent chose dentistry; 32.3 per cent, medicine; and 35.4 per cent answered "neither." The professional and self-employed groups showed slightly different attitudes in preferring medicine to dentistry by a two to one ratio. For the total group there were only minor differences of opinion shown by this classification.

The Dental Habits of the Respondents

Among respondents to this survey, 93.8 per cent had a regular dentist; 99 per cent of the professional group and 89 per cent of the skilled, semi-skilled, and unskilled group fell in this category. Only

6.2 per cent of the respondents did not have a regular dentist. The reported 6 per cent seems rather low for the national population, although it may not be much higher for urban areas. (See Table 5.)

Among the total group, 31.6 per cent reported having changed their dentists in the last five years. Some 24.7 per cent changed den-

TABLE 5
PERCENTAGE OF TOTAL RESPONSE TO THOSE QUESTIONS RATED AS INDICATING ATTITUDES TOWARD "THE DENTAL HABITS OF THE RESPONDENTS"
(N=1,000)

Interview Questions	*Yes (1)*	*No (2)*	*Don't Know (3)*	*No Answer (4)*	*Other (5)*
Do you have a regular dentist who cares for your dental problems?	93.8	6.0	0.1	0.1	0.0
Have you changed dentists in the past five years?	31.6	67.7	0.1	0.6	0.0
How often have you visited your dentist in the past year? (1) once; (2) twice; (3) three times; (4) four or more times; (5) not at all*	27.6	33.5	9.0	18.0	11.9
Are you uncomfortable when you think of going to a dentist?	46.4	51.5	0.6	1.1	0.4

* Responses are distributed, by percentages, in the appropriately numbered columns.

tists because of dissatisfaction with dental service, 5.1 per cent because of dissatisfaction with fees, and 14.6 per cent because they wanted a change. In most cases it was either because the respondent moved (37 per cent), or because the dentist moved (15 per cent). These data should be of some significance for the dental school graduate about to open his office.

Of the group studied, 27.6 per cent visited their dentists once in the past year and 33.5 per cent visited their dentists twice. There is a deviation only in the professional group, 50 per cent reporting

having visited their dentist twice in the last year. When one considers the attitudes of the profession towards the dental habits of most people, the emphasis on seeing your dentist at least once a year, then the reported percentages seem to be higher than might have been expected.

A little over 46.4 per cent of all respondents were uncomfortable at the thought of going to a dentist. Only 30 per cent of the professional group felt such discomfort, while 53 per cent of the housewives reported uncomfortable feelings. On the other hand, 51.5 per cent of the group reported no uncomfortable feelings about going to a dentist.

Additional Evaluation of Dentists

Other questions reported in Table 6 not rated as suitable items within the four classifications discussed above reveal certain interesting attitudes. For example, only 17.3 per cent of the respondents would go to a dentist who used hypnosis (26 per cent of the professional group and 14 per cent of the housewives). The reported percentage (66.2 per cent) against hypnosis indicates a rather definite attitude against its use, especially so if the indication of group bias in favor of the dental profession is correct.

Among the respondents, 63.8 per cent of the total population went to dentists who usually employed a nurse, a dental hygienist, or secretary as an assistant. When these 638 persons were asked if they objected to having the dental hygienist clean their teeth, 69 per cent did not object while 16 per cent did. It may be that the group interpreted "necessary" to mean some neglect on the part of the dentist (being too busy, etc.).

Of the group studied, 42.2 per cent felt there were enough dentists. It should be noted that this is one of the few questions that had fewer than 50 per cent replying in the affirmative. There is probably quite a bit of uncertainty about this question by most people, or it may be that the group interviewed wanted to assure the dental students that there was a place for them in the profession.

Also 33.7 per cent did not think there were enough dentists today, 22.9 per cent did not know, and 1.2 per cent gave another answer.

There were marked differences in the responses of the various occupational groups to the question, "Does your dentist x-ray your teeth?" Of the total group, 77.3 per cent reported that their dentists

TABLE 6
PERCENTAGE OF TOTAL RESPONSE TO THOSE QUESTIONS NOT RATED AS SUITABLE FOR INCLUSION IN RATED CLASSIFICATION
(N=1,000)

Interview Questions	*Yes (1)*	*No (2)*	*Don't Know (3)*	*No Answer (4)*	*Other (5)*
Would you go to a dentist who used hypnosis instead of drugs and general anesthesia?	17.3	66.2	15.0	1.4	0.1
Does your dentist usually have a nurse, dental hygienist, or secretary as an assistant?	63.8	34.8	0.8	0.6	0.0
If the answer is yes, and the dentist has a dental hygienist, then ask, "When it is necessary, do you object to having the dental hygienist clean your teeth?"	15.7	69.1	3.9	10.8	0.5
In your opinion, are there enough dentists?	42.2	33.7	22.9	1.0	0.2
Does your dentist x-ray your teeth?	77.3	20.9	0.8	0.9	0.1
If yes, then ask, "How often does your dentist x-ray your teeth?" (1) Less than once a year, (2) once a year, (3) twice a year, (4) three times a year, (5) more than three times a year*	49.5	35.8	12.8	1.0	0.1
Dentist are required to take college as well as four years of training in Dental School before being permitted to practice. In terms of experience, do you think that your dental care could be handled by a person with: (1) less; (2) same: (3) more training, (4) no answer.*	5.6	80.6	12.1	1.7	0.0

* Responses are distributed, by percentages, in the appropriately numbered columns.

x-rayed their teeth (93 per cent of the professional group and 69 per cent of the skilled, semi-skilled and unskilled group represent the two extremes of the five groups studied). Of the 773 persons who reported that their dentists x-rayed their teeth, 50 per cent reported that they were x-rayed less than once a year, 36 per cent once a year, 13 per cent twice a year, and 1 per cent three times a year or more. There were no marked group differences.

Educational and professional training standards of less than those presently demanded were considered feasible by only 5.6 per cent of those interviewed. More training was thought necessary by 12.1 per cent. The same level of training was considered satisfactory by 80.6 per cent. No answer to this question was given by 1.7 per cent. These opinions point to the general attitude that there is a need for at least as high a standard of training as is true at the present and the possible need for higher standards in dental education.

Conclusions

The attitudes of the interviewed population were, on the whole, favorable toward the dental profession.

Although the universe of the study may have been biased in their attitudes toward the dental profession, it is probable that the group differences noted by occupation would still hold true. The only difference may be in degree. The most favorable opinions toward the profession were consistently given by the professional group followed by the self-employed groups. There were apparently no over-all significant differences among the skilled, semi-skilled, and unskilled groups or the secretarial-clerical and housewife groups.

This survey does reveal attitude differences among the five occupational groups of the sample. While one may not be able to project these findings as being indicative of the attitudes of a national population, the reported group differences are of importance to the planning and design of any future attitude study of the general population toward dentistry.