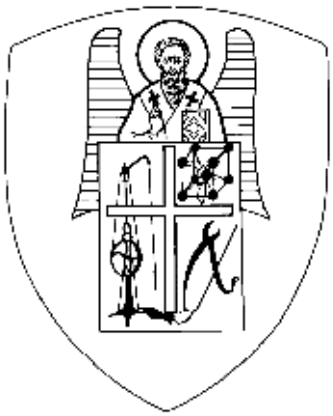

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Site visit to
NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS SCHOOL OF DENTISTRY
FINAL REPORT

15.-19. May 1999

GENERAL INFORMATIONS

Name of School:

University of Athens - School of Dentistry

Address:

2 Thivon Street, Athens GR-115 27, Greece

Dates of visit:

15th - 19th May, 1999

Visitors:

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Section 1: Introduction and General Description

General remarks - History

The School of Dentistry of the National and Kapodistrian University of Athens was founded in 1911. It has been declared by the government as a Dental Department of the Medical School in 1953 and as an independent School of the University in 1970. In 1982 the structure of the University was changed into its present status. In 1970, the facilities of the School were moved to a new building within the Medical Campus, where it is presently located (Main Building). In 1991, an additional New Building was constructed next to the existing one in order to house the postgraduate programmes, the library and the administrative offices.

Undergraduate education

There are two dental schools in Greece. The School in Athens accepts 150 - 160 students per year. The five year curriculum includes courses in basic sciences, biomedical sciences, clinical medical sciences and clinical dental sciences. The arrangement of courses is in a diagonal format, providing a broad spectrum of basic and biomedical sciences and an introduction to dental sciences. The fourth and fifth year of the curriculum are primarily devoted to clinical education and treatment of patients.

Personnel and development of staff

The faculty members are well-qualified holding advanced training degrees in various clinical specialities. All of them have doctorate degrees and a significant number of them is involved in research. The diversified educational background of the faculty results in a dynamic environment and an active forum for exchange of ideas, creation of new projects and directing the educational programmes to meet the set goals and objectives.
The presence of graduate programmes in every clinical discipline provides the opportunity for further education following a clinical or research career and obtain advanced degrees equivalent to Master's and Ph.D. The postgraduate students are involved in the treatment of complicated cases. They also take part in research.

Public relations of School

The School is in close co-operation with other schools and universities as well as the government, and it is constantly involved in community programmes targeting specific groups of patients and, therefore, is committed to dental care of the population.

Location of School

The School is located in a major metropolitan area with rich history and cultural activities. Athens is a city with many libraries, archaeological sites, museums, theatres and stadiums. Major festivals, sporting events and scientific meetings are organised annually providing an excellent opportunity to faculty members and students to enrich their quality of life and their scientific interests.
The numerous and continuous activities of the School of Dentistry have placed the institution in a reputable position among the schools and academic organisations in the area.

General objectives

The main educational objective is to graduate competent dentists who will care for the well being of their patients and the oral health of the population based on

1. sound and broad biological basis of clinical knowledge,
2. preventive approach in all disciplines,
3. social sensitivity and service to the community,
4. direction towards lifelong learning.

The Dented Site Visit Group appreciates that these objectives are discussed in faculty meetings and that committees like Committee on Education, on Research, and on Finances set the goals and assess the outcomes.

Basic data of School of Dentistry

- Average number of dental students qualifying per year: 150
- Average number of dental students admitted to the first year: 150 - 160
- Length of course in years and semesters: 5 years / 10 semesters
- No separate period of vocational training following graduation as a dentist.

Section 2: Physical Facilities

The School of Dentistry is located in two buildings. The Main Building, which is under reconstruction, is primarily functioning for the undergraduate programmes, while the New Wing houses mainly the postgraduate education programmes. The new wing includes the library and laboratories.

In the Main Building there are an amphiteatre for 200 persons, a conference room for 50 persons and five seminar rooms for 40 students each. The Clinics for the undergraduate students are located on two different floors with 40 chairs each. There are separate clinics: Oral Surgery Clinic, Craniomandibular Disorders Clinic, Orthodontic Clinic, Paediatric Dentistry Clinic, Oral Diagnosis Clinic, Oral Medicine Clinic, and Surgery Clinics in two nearby hospitals. All clinics have a total of 132 chairs.

In the New Building there are a multipurpose lecture / lab room for 54 students, two seminar rooms for 30 students each and four clinics for the postgraduate students. These clinics have a total of 38 chairs.

The Health Science Library, lecture theatres and laboratories of the basic and biomedical sciences courses in the Medical School complex are used. For the Section of Oral and Maxillofacial Surgery facilities in the "Evangelismos" General Hospital (20 beds) and Children's Hospital (10 beds) are used.

The clinical facilities are in the process of renovation opening the possibility of organisation of a comprehensive patient care course. The facilities help to integrate the work of the different departments in clinical teaching. The co-existence of all graduate programmes in the same building contributes to future co-operation among different departments and sections.

The renovated facilities and laboratories meet international standards.

Section 3: Organisational and Administrative Structures

The National and Kapodistrian University of Athens, in its present structure, consists of five Faculties (Theology; Law, Economics and Political Sciences; Health Sciences; Philosophy; Sciences).

The Greek Constitution stipulates that the University, as an Institution of Higher Education, shall be a legal entity of public law. It has full administrative autonomy, but is subject to state supervision by the Ministry of National Education and Religion, which also provides its funding.

The University's administrative authorities are the Senate (assembly of representatives of faculties, students etc.), the Rectorial Council and the Rector.
The School of Dentistry of the University of Athens is structured in four departments. The 5th department will be established later in 1999.

Information technology

There is an Internet access with e-mail accounts for administrative and academic staff and graduate students. A clinical information system (central computerized filing system) is planned for the near future.

The library is equipped with about 2000 books mainly in Greek language. A broader selection with international textbooks is recommended. The number of international scientific journals meets the standard.
There is a computer facility for literature search.
With the implementation of the new clinical computer system including the network for both buildings it is recommended to increase the Internet access for all undergraduate students.

Chart 1: Organogram of the University of Athens

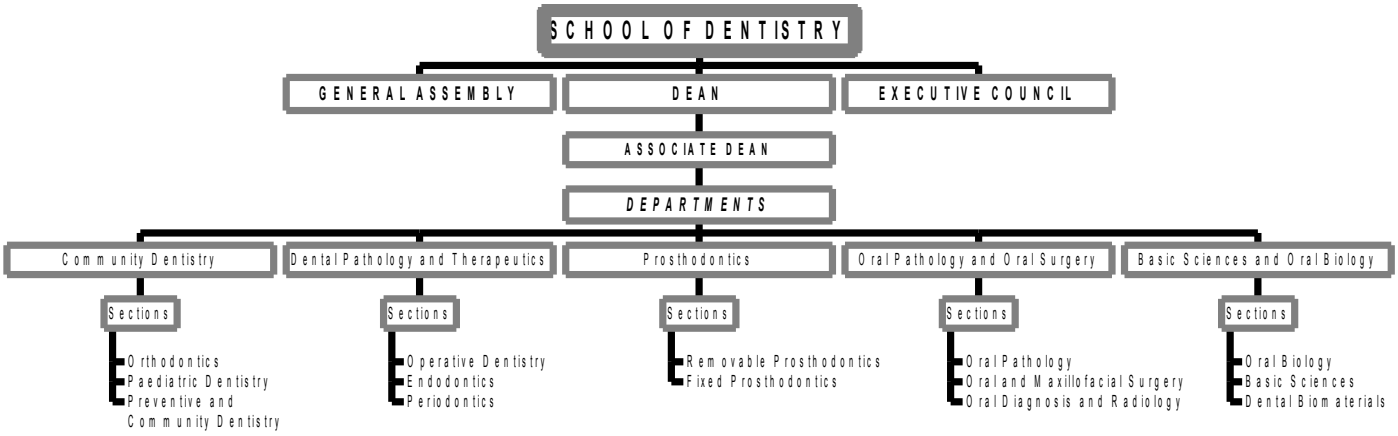

Chart 2. Organogram of the School of Dentistry.

Section 4: Staffing

The teaching staff is divided into two main categories. The first category represents the traditional faculty ranks who are employed by the University and receive annual salary. There are six ranks which include Professors, Associate Professors, Assistant Professors, Lecturers, Instructors and Clinical Associates. The second category includes Clinical Associates who receive no annual salary and assist the faculty members in the clinical or laboratory work. The part time Clinical Associates are well-trained younger dentists who have advanced degrees and speciality training. They work part time, about 25% of the full time salaried staff. The 158 Clinical Associates represent 40 full time equivalents and they substantially assist the School's educational activities.

Sections 5 - 16: The Dental Curriculum

The curriculum is organised in the diagonal format. In the first three years there is an emphasis in the basic and biomedical sciences and consecutively the students are introduced to the dental subjects. From the third year on, the education is predominantly in dental clinical sciences.
The curriculum is structured in two main sections, the basic and biomedical sciences on one hand and the clinical sciences on the other.
There are explicit timetables for each semester for all the courses offered by the School. Because of the high number of students, they are divided for laboratory and clinical courses into three or four groups.

Contents

Section 14. Oral Medicine and Oral Pathology

Section 15.1. Integrated (Comprehensive) Patient Care
Section 15.2. Dental Emergencies
Section 15.3. Care of Special Needs Patients

Section 16. Practice Management and Communications

BASIC AND BIOMEDICAL SCIENCES

Section 5: General Chemistry, Biochemistry, General Physics, Cell Biology, Genetics

The course in General Chemistry (Prof. K.E. Sekeris) is given during the first semester. Its is aimed at establishing general understanding of inorganic and organic chemistry, with a focus on the chemistry of biomolecules, as well as the fundamentals in physical chemistry and bioenergetics.

The course in biochemistry (Prof. K.E. Sekeris) is given to the second year students for two semesters.
The primary aims are to acquaint the students with the main biomolecules, their function and metabolism, with therapeutic and research tools in medicine and dentistry.

The course in Cell Biology and Genetics (Prof. L. Margaritis) is given in the first semester and is aimed at knowledge of cell structure and function and basic knowledge of human genetics.

Strengths

- Education in chemistry is closely connected with the succeeding teaching of biochemistry.
- Some lectures are devoted to clinical biochemistry.
- Highly motivating lecture course in cell biology and genetics using multimedia techniques.

Weakness

Very low attendance rate in some lecture series in contrast to the 80% attendance in cell biology.

Recommendations

- Its is recommended to increase the time spent for education in clinical biochemistry.
- It is further recommended to adapt lectures and seminars to the well prepared and updated textbooks and course manuals.

Section 6.1: Anatomy

The course of Anatomy (Prof. N. Papadopoulos) is given to first year students. There is a 5 hours theoretical course during two semesters and 4 ½ hours practical course per week during one semester. At the end of the courses there is a written exam.

Strengths

- Combination of theoretical teaching and practical courses.
- Teaching general anatomy with special emphasis on dental clinical problems and offering a postgraduate course of topographic anatomy to dental students.

Recommendation

The plan for future implementation of multimedia techniques parallel to the practical courses is strongly supported.

Section 6.2: Physiology

In the course (lectures and laboratory exercises) of Physiology (Assoc. Prof. Paraschos) the main topics are the physiologic function of the cardio-pulmonary, digestive, and urinary systems, metabolism of lipids, proteins, carbohydrates and hormones, mechanisms of physiologic functions of the genetical, muscular and neuromuscular systems. At the end of the course there is a written exam.

Weakness

There are no practical courses and collaboration with oral physiology and pathophysiology is missing.

Recommendation

It is recommended to include oral physiological topics into the theoretical and practical part of the course.

Section 6.3: General Histology, Embryology

The education in General Histology and Embryology (Prof. Ch. Kitas) comprises both theoretical instruction and laboratory work. Courses are given

during the second semester. The number of hours for theoretical instruction are 25 and for practical work 6.
At the end of the course the students should be able to recognise different tissues and cells and know their structure and function. They should also know the development of the fertilised ovum, the derivatives of the germinal layers, the crucial events during morphogenesis of the various organs and the formation of the embryo and the foetus.

Strength

Computer assisted teaching in histology and embryology parallel to microscopy courses with an outstanding amount of organ sections.

Recommendations

It is highly recommended to extend the CD-Rom programme and to distribute the multimedia experiences among other basic science departments.

Section 7: Pharmacology, General Microbiology, General Pathology, Epidemiology

Introduction

Pharmacology (Assoc. Prof. Delitheos)
Introduction to principles of pharmacology, pharmacology of the different systems of the human body, anti-inflammatory, antihistaminic and anticoagulants drugs, principles of chemotherapy, prescription writing, antimicrobial drugs, anticancerous drugs, drugs of CNS and hormones.

General Microbiology (Prof. N. Legakis)
Morphology and physiology of pathogens, immunology, prevention, therapy, antibiotics and epidemiology.

General Pathology (Prof. P.S. Davaris)
The education in General Pathology comprises one semester course (4th semester) including 11 laboratory exercises and 24 lectures.

Epidemiology (Prof. D. Tricholoulos)
Introduction to Epidemiology, descriptive epidemiological research, formation and testing of hypotheses.
Ethical and legal problems in medical research, introduction to preventive medicine, preventive methods for different pathologic conditions.
Biostatistics are taught in the first semester and epidemiology is taught in the fourth semester.

The attendance rate in this section was reported to be about 20 to 30%. The failure rate in exams was reported to be between 30 and 70%.

Strength

Lectures are based and related to standard textbooks written by intramural staff.

Weakness

There is no explicit sequence of courses, so that students can proceed in advanced courses without having completed the basic courses.
Since there is an overload of lectures and seminars in the beginning of the education, the attendance rate of lectures is rather low.
The low attendance rate results in a high failure rate.

Recommendations

- The successful examination in a basic science course should be the prerequisite for advanced courses to acertain a well-structured sequence in education.

- Other teaching and learning methods enhancing the students' activity should be discussed.

Section 8: General Medicine and General Surgery

The course of General Medicine (Prof. S. Hatziyannis) in the 6th semester introduces the students to the following topics:
Medical history, clinical diagnosis of the patients, infections of the oral cavity and pharynx, infections of the upper digestive system, fever syndromes, headaches and neuralgias, emergency syndromes of the respiratory system, endocarditis, cardiac arrhythmias, coronary and heart diseases, hypertension, viral diseases, ishemia, hepatitis, AIDS, allergies, diabetes, anemias, other blood diseases, hormonal dysfunctions, renal failure.

The education in General Surgery (Prof. J.G. Gogas) in the 7th semester gives the fundamental principles of surgery. The course exists in this form since one year, at the end of the practical course students should be able to diagnose diseases, especially in the head and neck area.

The attendance rate is high, the failure rate in General Medicine is about 30%, all students passed the exam in General Surgery successfully after the first year of implementation.

Strength

There is a well-organized and extensive bed-side teaching in General Medicine.

Recommendation

Future organisation of practical courses in smaller groups in General Surgery.

CLINICAL SCIENCES.

Section 9: Orthodontics and Pedodontics

Introduction

Orthodontics (Prof. M.N. Spyropoulos)
The undergraduate education in orthodontics comprises two major educational units, a first unit during the 4th semester (lecture on dentofacial growth and development, development of occlusion and classification of malocclusions), and a second unit in 7th(laboratory exercises), 8th (clinic and seminars), 9th (Clinic) and 10th (clinic + seminars) semesters.

The students should gain the necessary knowledge on the normal growth and development of the craniofacial complex and the factors that may intervene with normal development of the occlusion. Upon completion of this series of courses they should be able to classify clinically the malocclusions and assess the malocclusion that can be treated by the general practitioner and those that should be referred to a specialist.

Pedodontics (Prof. E. Papagiannoulis)
The undergraduate programme in Pedodontics includes both theoretical courses and laboratory and clinical training. The first theoretical course is given to the students of the 7th semester and provides the basic knowledge. Laboratory training on plastic and natural primary teeth expand the dexterity of the students on the restorative procedures on primary teeth. Students of the 8th, 9th and 10th semesters treat co-operative children in the clinic under the supervision of well trained staff members. At the 10th semester, the second theoretical course is given in the form of seminars to small groups of 20 students. The emphasis in this course is on children with complicated oral problems.

Strengths

- Well organized section of pedodontics and good cooperation with orthodontics and operative dentistry.
- Students take part in treatment of patients.
- Problem oriented case presentation in small groups.
- Invitation of a pediatrician, psychologist and psychiatrist to lectures about children's behaviour and diseases.

Weaknesses

Low attendance rate to lectures in orthodontics.
Many part-time supervisors involved into clinical teaching.

Recommendations

- It is recommended to practice also complex treatment methods more extensively in the preclinical part.
- Implementation of treatment of patients in special needs into clinical education should be supported.
- The outcome of rotating undergraduates into the postgraduate programme seems to be promising

Section 10: Public Oral Health and Preventive Dentistry

Introduction

*The education in preventive and community dentistry (*Prof. T. Athanassouli)

includes 3 courses: Introduction to Dentistry and Community Dentistry, Preventive Dentistry and Community Dentistry.
The first course provides an introduction to community dentistry and is designed for students of the 1st semester. This lecture introduces the students to the science of dentistry, the history of dentistry and the behavioural sciences.
The second course in preventive dentistry is composed of lectures, seminars and practical courses and addressed to students of the 6th semester. In this course the students learn about the philosophy of prevention and obtain knowledge of different methods of preventing oral diseases.

The third course of Community Dentistry is designed for students of the 7th semester. It provides knowledge concerning organisation and implementation of methods and techniques for the maintenance and improvement of oral health on a general and on an individual level.

Strengths

- Interdisciplinary approach inviting representatives of other university departments and the chairmen of all dental clinical departments and, therefore, exposing students at the very beginning to clinical problems giving them an insight to their future profession.
- The course is supporting the development of social competences of the students.

Recommendation

It is recommended that the undergraduate students take part in community based preventive programmes, including follow-up and outcome analysis, to sharpen their feeling of responsibility and social competence.

Section 11.1: Operative Dentistry

The teaching responsibility for the course of dental morphology and introduction in occlusion belongs to the Section of Operative Dentistry (Assoc. Prof. G. Douvitsas). The compulsory course is in the 2nd semester and contains lectures and laboratory practice. There is also an 11 two-hour lab course.

The teaching responsibility for the course of pathology of the dental hard tissues is equally distributed to the Sections of Operative Dentistry and Endodontics (Prof. G. Vougiouklakis, Assoc. Prof. G. Douvitsas). The 32 compulsory lectures are given in the 3rd semester.

The responsibility for the courses in Operative Dentistry mainly lies in the Section of Operative Dentistry. There are lectures from the 5th to the 10th semester (Prof. G. Vougiouklakis).

The curriculum of Operative Dentistry is divided into two courses, Operative Dentistry I (5th semester) and Operative Dentistry II (6th - 10th semester). There are lectures, seminars, laboratory and clinical exercises. Examinations follow the 5th and the 10th semesters.
In the 5th semester the theoretical background and the basic knowledge in Operative Dentistry are taught by means of lectures and laboratory exercises in simulation units. The 7th and 8th semesters is for clinical practice in non-invasive, preventive and conventional restoration techniques.
Complicated restoration techniques are topics in the 9th and 10th semesters.

Section 11.2: Endodontics

The subject of Endodontics (Prof. V.Tsatsas) is taught from the 5th to the 10th semester. The clinical education includes lectures, seminars, laboratory and clinical exercises. The examination of students are at the end of the 6th and 10th semester.

During the 5th and 6th semester the theoretical background of Endodontics is given and the students are trained to perform a complete endodontic treatment on extracted teeth.

During the 7th and 8th semester the education of students continues with clinical exercises of endodontic treatment on single or two-rooted teeth. Seminars on the clinical topics relative to the curriculum accompany the practical exercises. During the 9th and 10th semester the students perform endodontic treatment on multirooted teeth and more complicated cases. The students also have to participate in the treatment of endodontic emergencies .

Section 11.3: Removable Prosthodontics

The education in Removable Prosthodontics (Prof. P. Dimitriou) contain the courses: Removable Prosthodontics I in the 5th and 6th semester and Removable Prosthodontics II in the last four semesters.

The course Removable Prosthodontics I is an introductory laboratory course. By the end of the course the student is able to model a set of complete dentures and is familiar with the materials and laboratory procedures of an acrylic set of complete dentures.

By the end of the course Removable Prosthodontics II the student is able to manage the clinical application of complete dentures, partial dentures, conventional and implant retained overdentures, and immediate dentures.

Section 11.4: Fixed Prosthodontics

Education in Fixed Prosthodontics (Prof. A. Doukoudakis) is initiated during the 2nd semester of the undergraduate curriculum and it is completed in the 10th semester with a final examination.

In the 2nd semester the course in dental materials (Prof. N. Kafousias) provides the opportunity to understand the basic principles that guide the use of materials in dentistry. The course has an emphasis on basic material science and is foundation for the following preclinical courses.

In the 4th and the 5th semester the course “Basic Procedures in Fixed Prosthodontics” continues the preclinical instruction. The students are taught the techniques of manufacturing fixed prostheses with plastic teeth (dentoforms, typodonts). The biological background that guide the various contemporary techniques and procedures is taught.

In the 5th semester the Department offers the course “Physiology of the Stomatognathic System” (Prof. B. Droukas), which includes “Principles of Occlusion”.

In the 6th semester the students participate in a last preclinical course improving their skills prior to the entrance in the clinical part of their education.

In the 7th , 8th , 9th and 10th semesters students treat patients in the clinic parallel to seminars witch are related to clinical topics. The educational activity provides a strong emphasis on total patient care concept and alternative treatment planning.

Overall, the education process in Fixed Prosthodontics identifies three levels of student involvement. Students learn procedures in preclinical courses and apply them during the clinical years. The first level is the level of basic knowledge and application. The second level includes essential knowledge in prosthodontic procedures. The third level gives an insight in

more complicated cases and serves as the motivation for future.

Strengths

- There is qualified personnel with postgraduate education in the US and other European countries in clinical and research programmes.
- The manuals provided by the faculty ensure the interdisciplinary information.
- The lecture courses are well structured and organised.
- There are distinct and clearcut formulated goals for undergraduate education.

Weaknesses

- The lack of recall examinations of treated patients may result in a lack of self-evaluation.
- The number of students per year is very high.
- The "prescription" of textbooks may produce the risk of a "monoculture" of the therapeutic approach.

Recommendations

We recommend an integrated approach in the field of Operative Dentistry and Restorative Dentistry for a better interdisciplinary education.

Section 12: Periodontology

The education in Periodontology (Prof. Z. Mantzavinos) comprises three courses: Oral Histology and Embryology, Periodontology I and Periodontology II.

Oral Histology and Embryology is taught in the 2nd semester, Periodontology I is taught in the 5th semester, Periodontology II is taught in the 6th to the 10th semester. Periodontology I and Periodontology II comprise lectures as well as seminars. There is a pre-clinical training of 12 hours and clinical training once a week over a period of approximately 30 weeks. There are written exams at the end of all semesters.

Strengths

- The course in Oral Histology and Embryology is part of basic science education.
- The teaching staff has full training in the speciality of periodontology.
- Maintenance care is organized from the 7th to the 10th semesters.

- High risk patients are followed-up in collaboration with Department of Community Dentistry.

Weaknesses

- The non-existence of dental assistants and dental hygienists contributes to less effective education.
- There is a lack of comprehensive dental care approach representing the regional health care needs.

Recommendations

It is recommended to improve further integration of the Course in Oral Histology and Embryology into basic science teaching. Periodontology may play a major role in implementing the comprehensive dental care education, experiences of maintenance care and follow-up of patients over 4 semesters should be discussed among all departments and sections.

Section 13.1: Oral and Maxillofacial Surgery

The Course on Dental Anaesthesiology (Prof. A. Angelopoulos, Assoc. Prof. S. Kamperos) includes lectures, workshops, and chairside instruction in the outpatient clinic. This course is part of the 5th-semester.

The Course on Oral Surgery (Prof. A. Angelopoulos, Assoc. Prof. S. Kamperos) includes lectures, seminars, and chairside instruction in the outpatient clinic. This course is given in two parts, Oral Surgery I and Oral Surgery II, and spreads along the 6th to the 10th semester, with gradual progression from simple extractions to minor oral surgical procedures.

The Course on Maxillofacial Surgery (Prof. A. Angelopoulos, Assoc. Prof. A. Patrikiou) includes lectures, seminars, and attendance at the outpatient clinic. This course is given in two parts, Maxillofacial Surgery I and II, and spreads along the 8th to the 10th semester.

Strengths

- There is an adequate exposure to the management of local anaesthesia, medical emergencies including CPR.
- The clinical instruction includes treatment of patients and the adequate exposure to the full scope of contemporary oral and maxillofacial surgery is ensured.
- The theoretical instruction is directly translated into clinical practice.

Weaknesses

- The number of students in each learning group is high.
- There is a fairly limited lecture attendance by the students.

Recommendations

The plans for future changes concerning new teaching methods and improvement of clinical education and bed-side teaching are strongly supported. The implementation of general anaesthesia into the undergraduate curriculum is contradictory to most European state regulations, and this plan for future changes needs to be discussed, taking into account the more common collaboration of anaesthesiologists and dentists in treating outpatients in special needs.

Section 13.2: Oral Diagnosis and Radiology

The section of "Oral Diagnosis and Radiology" is part of the Department of "Oral Pathology and Oral Surgery". Oral diagnosis and radiology (Prof. N. Spyropoulos) takes places in several homonymous courses, which are in the 3rd , 7th , 8th , 9th and 10th semester. The curriculum of "Oral Diagnosis and Radiology" comprises of 2 courses, "Oral Diagnosis and Radiology I" (3rd semester) and "Oral Diagnosis and Radiology II" (7th –10th semester) with lectures, seminars, laboratory and clinical exercises.

In the 3rd semester the students are taught the basic concepts of the clinical examination of the face, neck and oral cavity as well as the basic intraoral and extraoral radiographic techniques.

In the 7th and 8th semester the students examine and diagnose the pathologic conditions of the oral cavity.
In the 9th and 10th semester the students learn the concepts of differential diagnosis and treatment planning.

Strength

Large number of patients that can be examined by students (approximately 5000 patients are examined annually in the Oral Diagnosis and Radiology Clinic).

Weakness

There is an insufficient number of radiology technicians, secretaries and nurses.

Recommendations

The plans for future changes implementing comprehensive dental care education will influence the structure of a separate section of oral diagnosis. Therefore, it is recommended to discuss the risk of gaps between oral diagnosis, emergency treatment, maintenance care and recall and, finally-long-term follow-up of all non-referred patients. The academic disputes which already started concern a more holistic approach, and these discussions are strongly supported.

Section 14: Oral Medicine and Oral Pathology

The lecture and course in Oral Pathology (Prof. S. Papanikolaou) includes genetics, orofacial dysplasias and oral oncology. Teaching hours consist of three lectures per week and a concomitant microscopic laboratory course.

The material of Oral Pathology I includes inflammatory lesions, infection diseases (bacterial, viral, fungal) and oral manifestations of systemic diseases. Teaching consist of two lectures per week and microscopic laboratory course.

Oral Pathology II focuses in Oral Medicine. The students during the 9th and 10th semester are divided into small groups and rotate in the clinic of Oral Pathology as well as in clinics of affiliated hospitals. The students also broaden their clinical experience on oral diseases and lesions by attending a clinico-pathologic seminar.

Strengths

- Laboratory training in histopathology is well organized.
- Diagnostic service on the basis of 750 samples p.a. is contributing to education.

Weaknesses

- The equipment for service histopathology needs improvement.
- The number of students per group in laboratory courses is high.

Recommendations

The plans for future changes concerning multimedia presentations and self-assessment tests by the help of CD-ROM guides are supported. Oral pathology could play a key role in interdisciplinary teaching of patho-physiologic and patho-biochemic basics of oral diseases.

Section 15. Integrated (Comprehensive) Patient Care, Dental Emergencies, Care of Special Need Patients

Integrated Patient Care will be initiated in the end of 1999 as a mandatory educational program for all senior dental students.

Dental Emergencies are taught primarily by Oral Surgery, Endodontics and Pediatric Dentistry.

Teaching of care for patients in special needs is included in lectures and seminars within the various departments. Patient contact is achieved through several programmes that exist among geriatric nursing homes, anti-drug treatment centres and institutions for special need children.

Strengths

- The Curriculum Committee with representatives of all departments and sections, and students, is aware of the need for improving comprehensive patient care and dental emergency education.
- The programme for senior students (20 students per group, 2.5 days comprehensive care, 2.5 days disciplinary clinical training per week) is well developed.

Weaknesses

- Integrated clinical training does not influence the process of integration in preclinical training (integrated dental propedeutics).
- The school itself does not provide dental emergency treatment after the rather short hours of operation.

Recommendations

The aims of the Curriculum Committee and plans for future changes improving comprehensive dental care education according to the national and regional health care needs of the population are strongly supported. It is recommended that students take part in emergency treatment, the access is likely to expand to 24 hours as a consequence of comprehensive dental care and patients in maintenance care.

Section 16. Practice Management and Communications.

Behavioural sciences, communications and ethics are integrated parts of the courses “Introduction to Dentistry and Community Dentistry” and “Paediatric Dentistry”. Further information and knowledge is given by other courses in the dental curriculum.
There is no formal course in practice management but information is provided in various seminars in the 5th year of studies. A limited number of students is sent to pre-selected dental practices to observe their operation and learn principles of practice management.

Strength

Early integrated teaching inviting teachers from non-dental university departments, concerning topics such as history of medicine, ethics, philosophy etc.

Weakness

The students do not feel well enough prepared for their start of professional life.

Recommendation

- The faculty should continue to make efforts to expand a student programme for work in dental practices and to analyse the outcome.
- It is recommended to include theoretical and practical training in clinical psychology.

Section 17: Examinations, Assessments and Competences

The methods of assessment vary among the departments. About 50% of the assessments are oral examinations. There are about six examinations every semester. Assessments are a permanent part of the laboratory and clinical courses. Written examinations are common in basic courses. Oral exams are common at the end of the tenth semester.
The access to research work and understanding of international literature is enhanced by an annual 3-day Scientific Meetings, where students can present their own research or scientific activity.

Strengths

- The students receive a balanced education of clinical and basic sciences.
- The international orientation of the faculty enhances participation in postgraduate programs at the faculty and abroad.

Weaknesses

- There are no evaluation and/or self-assessment programmes for students as well as for faculty members.
- Consequently, there is also no external evaluation of education.

Recommendations

- With a more comprehensive approach the number of exams could be reduced.
- A great number of exams may be motivating students, but it is recommended to develop other, more integrated approaches of testing parallel with the introduction of the comprehensive dental care education starting in September 1999. This will also result in less time the faculty has to spend for examinations.
- It is recommended to continue the development of a student self-assessment programme and to initiate a student evaluation programme of the faculty.
- It is also recommended to invite external evaluators to the final exams (representatives of local dental associations or other universities)

Section 18: Other Influences

Student selection procedures

Undergraduate students are admitted to the School through a National Entrance Exam (Panhellenic admittance examination) that is given every June and is extremely competitive. Students are tested and graded in four subjects: essay writing, chemistry, physics and biology. Apart from the students entering through the National Exam there are a number of additional students enrolled in the School. They are either transfers from other dental schools, or they have already completed their studies in other subjects and wish to obtain a DDS degree.
It is recommended that the faculty makes efforts to take part in future selection procedures. Taking into account the recommended future decrease of the number of students the faculty should make sure that highly motivated applicants with an acceptable knowledge in natural sciences and foreign languages would be accepted.

Regional oral health needs

Regional oral health needs vary and the school is able to treat a diversified sample of the population, exposing students to the oral health needs of the area. Through community programs postgraduate students take part in oral health promotion. It is recommended to extend such programmes to the undergraduate students, esp. in their preclinical years.
The visiting DENTED group supports all activities and initiatives in discussing the future professional characteristics of a dentist or an oral physician to reflect the regional oral health needs and the national health policy in the structure of the dental school.

Evidence based treatment

Evidence based treatment is becoming a goal in the undergraduate curriculum and a common discussion among staff members. Clinical training is based on scientific evidence and internationally accepted methods and materials.

Involvement in other university activities and sports

The students union is very active concerning cultural and political activities and sports. The students are represented in the European Dental Student Association.

Recreation

Athens provides an excellent opportunity for all kinds of cultural events.

Section 19: Student Affairs

The Dented Site Visit Competence Questionnaire was given to the students of the 4th and 5th year. Out of a total of 61 there was a number of 16 answered by the 4th year and a number of 45 answered by the 5th year students.
The questionnaire was - for practical reasons - translated into Greek language.

QUESTION	MEAN 5th	MEDIAN 5th	MEAN 4th	MEDIAN 4th
1	7,82	8	7,94	8
2	7,29	8	6,75	8
3	8,18	8	8,38	8
4	8,58	9	8,13	8
5	9,33	10	8,81	9
6	8,13	9	7,25	7,5
7	7,84	8	7,44	8
8	1,13	0	0,69	0
9	2,31	2	1,38	1
10	2,56	1	1,13	0,5
11	7,71	8	8,00	8
12	7,18	8	5,69	7
13	4,78	6	1,94	0
14	8,04	8	7,50	8
15	5,58	7	4,31	4,5
16	9,15	10	7,94	8
17	1,71	1	1,31	0,5
18	5,89	6	5,31	6,5
19	3,53	3	2,75	0,5
20	6,07	7	4,88	5

This table represents the rating on a scale 0 – 10 of clinical competences answered by students of the 4th and 5th year after an extended discussion period with the DENTED visitors.

Student representatives

B': 1. A. Rontogianni
2. S. Kimionis (2nd year)

C': 1. M. Tzanakakis
2. T. Mamalis (3rd year)

D': 1. J. Pitsakis
2. N. Paterianakis (4th year)

E': 1. M. Katrinis

2. A. Boucha (5^{th} year)

The overall impression was, that the students are content with their education. Differences between the 4^{th} and 5^{th} year students were due to the progress of their education.

19.2 List of different postgraduate courses at the School

Subject / Specialty	**Degree Awarded**	**Length of Course**	**Annual Output**
Prosthodontics	Diploma	3 years	2-3
Orthodontics	Diploma	3 years	1-2
Periodontics	Diploma	3 years	1-2
Oral Surgery	Diploma	2 years	2
Endodontics	Diploma	3 years	1-2
Pedodontics	Diploma	2 years	1-2
Oral Diagnosis And Radiology	Diploma	2 years	3-4
Oral Pathology	Diploma	2 years	2-3
Operative Dent.	Diploma	3 years	2
Dental Materials	Diploma	2 years	2
Public Dent. Health	Diploma	2 years	2-3
Oral Biology	Master of Science	2 years	2-3
Dental Materials	Master of Science	2 years	2-3
Oral Pathology	Master of Science	2 years	2-3
Public Dent. Health	Master of Science	2 years	2-3
Doctorate Program	Doctorate	3 years	3-5

Section 20: Research and Publications

Research focusses on applied research and involves both laboratory and clinical studies, for a wide range of subjects. It is mainly performed under the supervision of faculty members on a personal or departmental level, with the co-operation of graduate students and clinical associates.

Research is in the responsibility of sections, many of which have separate research units that are mentioned below. The implementation of the fifth department offers the chance to coordinate the research work. The establishment of the new fifth department requires an increase in personnel.

There are eight research units, including an experimental EMG laboaratory of removable prosthodonics, a research facility of oral pathology, a unit of dental materials, an oral microbiological laboratory, an orthodontic section, a craniofacial growth and physiology research unit, a research laboratory of pulp biology, an epidemiology research unit, and a cariology research unit.

Research outcomes are published in national journals and international journals (approximately 70% in Greek and 30% in English). Taking into account limited funding and equipment the research output on a national and international scale reflects a research orientation of most of the faculty, often acquainted by taking part in postgraduate programmes in other European countries and the US. Publications are considered to be a prerequisite for appointment even of junior personnel.

Strengths

- Emphasis is put on the development of personnel as researchers, although funds for research are limited.
- There is enough space and equipment for clinical related research projects with emphasis on intramural and extramural collaboration. Research methodology is part of the Masters Programme.
- The student research conference stimulates the research orientation of the students.

Weakness

There are limited funds for research projects.

Recommendation

The organisation of the Department of Basic Sciences and Oral Biology including the sections of Oral Biology, Basic Sciences and Dental Biomaterials is strongly supported by the Dented site visit group. This opens new opportunities for concentration of research activities, for closer

collaboration with extramural units and new positions for basic research representatives including technical staff members. New equipment could enhance future research work.

Section 21: Quality Development

Quality development is a continuous activity.
This is achieved through:

- Faculty seminars organised by each section.
- Faculty seminars organised by two or more sections on subjects of common interest.
- Participation in meetings, seminars and courses nationally and internationally.
- Visits to foreign dental schools in Europe and the USA and participation in research programmes.
- Sabbatical leaves are available for all faculty members who have completed six years of work at the School. This programme is used effectively by many faculty members.

Quality development of students is achieved through:

- Assessment of education by the Curriculum Committee.
- Specific description in the curriculum guide of every subject (content, aims, means to achieve those aims, criteria of successful completion of the subject).
- Organisation of an annual scientific meeting for dental students where mainly senior students present posters, table clinics, and oral presentations under the supervision of faculty members.

Section 22: Overall Comments on the School

The group of visitors and the EU-DENTED Network owes the University of Athens School of Dentistry and its staff a great debt of gratitude for participation and willingness to share experiences and innovations of the dental curriculum.

Modern Greece is a prominent member within the European Union and the intellectual resources are contributing to globalization and prosperity. The University of Athens is one of the major education centres in Europe.

The University of Athens School of Dentistry, founded in 1911, declared by the government as Dental Department of the Medical School of the University since 1970, provides high quality dental education. The mission statement of the School

"The mission of the School of Dentistry is the achievement of excellence through contemporary and dynamic education of the students, innovations in basic and clinical research, and effective treatment of the patients, meeting the needs of the community at large"

is highly appreciated and there is no doubt that this mission is influencing the academic atmosphere among faculty staff members and students.

The academic staff is well trained and internationally experienced and the teachers on tenure as well as most part-time clinical associates earn European and/or US postgraduate certificates.

There is a strong leadership of the Dean supported by the team of chairmen of departments and sections creating an atmosphere of dedication and friendship among colleagues.

Motivated students are able to reflect on their university environment, discussing and assessing their clinical achievements.

The standard of postgraduate education is high and the future outcome of these recently introduced programmes should be carefully assessed taking into account the national needs of dental care as part of medical care in Greece.

The academic reputation of the School within the dental and medical profession is high.

The innovative dental curriculum is appreciated by the University and supported by the University's administrative authorities. Some clinical facilities are renovated and equipped on an European standard with new clinical and simulation units.

There is a long tradition in good teaching in most basic sciences supported by a high research activity in the departments of the Medical School and the Faculty of Sciences.

It is one of the major strength, that maintenance care and a recall system in some disciplines (high risk patients, pedodontic and periodontal disease patients) have been implemented.

The bed-side teaching in maxillo-facial surgery and internal medicine is highly motivating.

The School is unique in attracting about 160 highly motivated and dedicated part-time clinical associates who take part in teaching and research.

The Student Research Conference has a long tradition (7th Conference in 1999) and is motivating students to take part in research projects.

The weaknesses of the School concern mainly the large number of students that creates problems and does not reflect a long range national dental health care policy.

There is an inadequate formalized communication concerning interdisciplinary reflections on education. The lack of information and joint activities concerns basic disciplines as well as clinical dental and medical fields.

A major concern is the lack of time and funding for research during the last years.

For many reasons there is until now an insufficient systematic maintenance care and recall of patients in some sections of dental clinical departments. The lack of auxiliaries is contributing to this situation.

The DENTED group feels that the lack of international textbooks and monographs should be a major concern to the School and the access of undergraduate students to contemporary literature and to the Internet should be improved. However, providing all students with all recommended Greek textbooks paid by the government is a unique support.

Concerning the curriculum development, the future dentist is faced with increased demands on widely different areas such as

- knowledge of general medicine
- competence in technically difficult treatment methods
- qualifications as a community orientated general dental practitioner.

In addition, the knowledge base within each existing discipline increases. Dental schools have to answer these demands in some way. Some options are diversifying the education by specialisation, increasing the undergraduate

curriculum to six years, or finding new pedagogical approaches to prepare the students for life-long learning.
At the University of Athens Dental School discussion for future development seems to be concentrated on curriculum time increase. This is contrary to general trends in Europe. The visiting group wishes to point to possibilities associated with increased discipline integration, comprehensive dental care education at an early time, and new pedagogical concepts such as problem based learning.

The plans for future development of the University of Athens School of Dentistry are highly appreciated and supported by the DENTED group.

The future development of the Department of Basic Sciences and Oral Biology is bridging the gap between basic and clinical sciences and will concentrate the research efforts of all departments of the School of Dentistry.

Comprehensive dental care education reflecting regional health needs and improved maintenance care are major educational steps to be taken in 1999. It is recommended to follow up the outcomes of the new approach in the main clinics. Experiences from European dental schools should be discussed by the teams responsible for the implementation.

The development of a programme for education in appointed external practices, continuing an EU initiative, is strongly supported. This educational approach will supplement the comprehensive dental care teaching and goes parallel to intramural clinical training.

Finally the extension of space for future development and specialized clinical and research facilities will contribute to the necessary growth of this Greek center of dental education and research and will also further improve the co-operation between basic sciences, medical clinical fields and dental clinical disciplines.