Dentistry is Medicine: Educating Dentists as Oral Physicians

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Formal Dental Education

- Harvard University
  - Boston
  - 1865

- Paris
  - 1879

- London
  - 1859

- Geneva
  - 1881

- Baltimore College of Dental Surgery
  - 1840

- Scandinavia
  - 1880s
Dental Education in the United States and Canada

“The Gies Report”

William Gies
“The Gies Report”

- "The practice of dentistry should be made either an accredited specialty of the practice of conventional medicine or fully equal to such a specialty in the grade of health service."
- Argued for enlarged view of dentistry with dentists becoming "oral physicians."
- Determined environment precluded at the time.
- Dental education continued to exist separately and autonomously from medical education.
Dental Education in Europe

- Dental Education in Europe also remains autonomous from medical education with curriculum typically of five years duration.
- Standardization result of Dental Directives drafted in 1978.
- Ensures freedom of movement throughout the EU.
Contrasting Odontological and Stomatological Education

- Education for dentistry autonomous from medical education characterized as *Odontological Model*.
- Studying for dentistry subsequent to qualifying as a generalist physician characterized as *Stomatological Model*.
- *Stomatological Model* existed previously in southern and eastern Europe.
Contrasting Odontological and Stomatological

“Schools in the stomatological lineage are beginning to question the excessive extent and depth of the science and medical courses in their curriculum, and there is a realization among odontological schools of the importance of strengthening the human disease element in their curricula.”

Professor John Scott, Former Editor
European Journal of Dental Education
Advocacy for the Stomatological Model

*Dentistry is Medicine—Oral Medicine*
The Oral Physician
Advantages of an Oral Physician Model

- Deeper and broader education in the bio/psycho/social sciences.
- Better understanding of human organism and its pathophysiology.
- Better able to assess and manage general health while caring for oral health.
- Competent to care for the oral health of medically and pharmacologically compromised patients.
Advantages of an Oral Physician Model

- Graduates more competitive and flexible in adjusting to changes in health care delivery.
- Responds to appeals for dentistry to become more fully integrated on the health care team and in the health care delivery system.
- Creates an awakening of physicians of the importance of the stomatognathic system to general health and well being.
- Potentially creates a more cost-effective strategy for educating dentists.
Environmental Pressures Force Transformation to an Oral Physician Model

- Conceptual
- Biomedical
- Epidemiological
- Professional
Conceptual Reflection Forces Transformation
Conceptual Reflection
Forces Transformation

Stomatognathic System
Conceptual Reflection Forces Transformation

Professor Michael Glick, Dean of School of Dentistry
University of Buffalo

and

Editor,
Journal of the
American Dental Association

University of Kentucky
Aristotelian Logic

- The application of science to the prevention, diagnosis, treatment and healing of disease is *Medicine*.
- *Dentistry* applies science to the prevention, diagnosis and healing of disease.

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- Therefore, *Dentistry is Medicine*. 
Aristotelian Logic

- Individuals who autonomously and definitely apply the principles of science to prevention, diagnosis and healing of disease are *Physicians*.

- *Dentists* are individuals who autonomously and definitely apply principles of health science to the prevention, diagnosis, treatment and healing of disease.

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- Therefore, *Dentists are Physicians*. 
Conceptually, Dentistry is a specialty within Medicine...not a discipline separate and autonomous from Medicine.
“Progress in biology and medicine is rapid and dental education is not keeping up. The situation cannot and should not continue.”

Bruce Baum

“The confluence of genomics, bioinformatics and health care coupled to the mantra ‘faster, cheaper and better,’ is already accelerating the use of genetics information to enhance health care.

Are our educational institutions…prepared to provide the critical knowledge and clinical experiences that will transform the practice of health care in the 21st century?”

Revising the Scope of Practice for Oral Health Professionals: Enter Genomics.

*JADA* 2014;145:228-230
The science knowledge base required by a dentist is no different than that of a physician.

North American typical biomedical curriculum for a dentist is 850 hours versus 2,000 hours for a physician.

1845, Ohio College of Dental Surgery: “Only those medical sciences will be taught which are necessary for dentistry.”

An oral physician must be able to continue to provide the same skillful level of mechano-technical therapy as currently.
Epidemiological Analyses
Force Transformation

SICK!
EPIDEMIC OF CHRONIC DISEASES

GOOD NEWS, BAD NEWS:
WE'RE LIVING LONGER, BUT EXTENDED LIFESPANS ALSO MAKE US MORE SUSCEPTIBLE TO CHRONIC DISEASES LIKE CANCER, DIABETES AND HEART DISEASE. IN FACT, CHRONIC DISEASES ACCOUNT FOR 70 PERCENT OF DEATHS EVERY YEAR.
LET'S EXPLORE THE CONDITIONS THAT HAVE US SHELLING OUT CASH FOR MEDICATIONS AND KEEPING OUR DOCTORS' OFFICES BUSY.

7 IN 10 DEATHS ANNUALLY Related to chronic disease
Epidemiological Analyses
Force Transformation
“The changing disease patterns, the advanced diagnostic and treatment methodologies, and the broadening of responsibilities illustrate the need for a new type of oral health professional… generalist ‘oral physicians.’

Oral Health for the 21st Century
World Health Organization, Geneva
Analysis of the Health Professions Forces Transformation

- Health care delivery system must acknowledge role of all aspects of human organism and provide access to care in cost-effective way.
- Dentistry must be integrated in delivery system to receive justified and equitable share of concern and financing from and for the public.
- Increasingly, care will be provided by paraprofessionals.
- “The middle is dropping out in society; jobs, and therefore people are becoming more sophisticated or less so.”
Analysis of the Health Professions Forces Transformation

- *Dental therapists* have cared for children in school-based programs in New Zealand for almost 100 years.
- The utilization of dental therapists in the oral health workforce has spread to over 50 countries in the world.
- *Dental hygienists* have been members of the dental team in the U.S. for 100 years.
- *Denturists* provide prosthetic care in a number of countries.

University of Kentucky
Analysis of the Health Professions Forces Transformation

- Dutch have expanded education in the biomedical sciences and in clinical medicine by adding a sixth year to their curriculum.
- Reduced the number of dentists being educated by 20%.
- Expanded the training of dental hygienists to four years to include the skills of the international dental therapist, as well as expanded the number of hygienists being training.
- Rationale: Future dentists will have to care for more complex cases, and routine restorative procedures can be delegated to the “new style dental hygienist.”
Educating an *Oral Physician*

- Specifics dependent on individual faculties of dentistry and medicine.
- Assumption must be that dentistry is medicine; comparable to any other specialty of medicine.
- Goal: dentists who practice compassionate, evidence-based, technically competent care; care supported by science and consistent with standards of care.
- Curriculum must include the core curriculum in which all individuals studying to be physicians participate.
Organizational and Structural Changes Facilitating Creating an Oral Physician
Organization and Structural Changes Required

“Dental education and dentistry are made vulnerable by their relative isolation from the broader university, from other health professions, and from the restructuring health care delivery and financing that characterizes most of the health care delivery system.”

Dental Education at the Crossroads
Institute of Medicine Report (U.S.)
Isolation is the Problem
Integration is the Solution
Structural and Organizational Integration

- Does not make sense to have a Faculty of Dentistry separate from the Faculty of Medicine. What if we had a separate Faculty for each organ system of the human body?
- Dentistry is medicine. Continued isolation from the mainstream of medical education and health care delivery is not in the profession or the public’s interest.
- Now is the time for integration.
Integration of Faculties

University of Kentucky
College of Dentistry

University of Kentucky
College of Medicine
Department of Oral Medicine
Advantages of Structural and Organizational Integration

- Enhanced education of dentists
- Enhanced education of ‘other’ physicians in oral health
- Enhanced research and scholarship
- Enhanced patient care
- Enhanced administrative efficiency
- Enhanced financial stability
Advantages of Structural and Organizational Integration

“Financial strains…will encourage institutions to consolidate or otherwise link programs in related areas such as medicine and dentistry.”
Conclusion