LETTER TO THE EDITOR

The intersection of oral medicine and interprofessional education

To the Editor:

Medicine, nursing, dentistry, pharmacy, dental hygiene, physician assistants, physical therapy, nutrition, and many other health care professions aim to provide the best and the safest available health care to patients with a variety of health conditions. Owing to advances of medical sciences observed in recent years, patients have their diseases diagnosed earlier, receive adequate treatment, and survive much longer. Nevertheless, what quality of life do they have, and what complications may result from their health care? A patient may be receiving treatment for several medical diseases/conditions and being managed by a number of different health care professionals simultaneously. Medications they take can cause adverse events. The dental care of these patients could be routine or more complex and invasive. The dentist must, therefore, have knowledge of all medical diseases and medications in the patient's medical history and obtain proper medical consultations to find the best way to treat the patient without jeopardizing general medical health. However, dentists usually work isolated in private practices and away from medical clinics and hospitals. Thus, communication between the dentist and the other medical providers may prove to be difficult. Dental and medical professionals had education and training with focus on different parameters. In general, dentists do not have enough knowledge of medicine and medical professionals have very limited knowledge about the oral cavity and oral health. One might ask how safe are the patients and what is the risk for complications if their health care providers do not communicate using common language and discuss the best and safest way to manage their health issues? Diseases and medications can affect the entire body and cause distinct manifestations and adverse reactions away from the original site of diagnosis. For instance, a patient with cancer with bone metastasis can be given an antiresorptive drug to help decrease the risk of adverse skeletal-related events. One of the adverse events is osteonecrosis of the jaw, a complication almost exclusively of the oral cavity.[1] Patients with dermatologic diseases can develop oral manifestations of the same disease.[2] Periodontal disease may contribute to the deterioration of systemic health in patients with cardiovascular disease.[3] These are only a few examples demonstrating that systemic and oral health go together and that a patient, at one point in time, may need to be managed by a team of health care professionals simultaneously. However, lack of education and knowledge in oral and systemic health, as well as voids in curricula of the medical and dental professions, increase the chances that health professionals treating a patient will fail to properly communicate and discuss best practices for managing that particular individual. They may not be aware of what the other professionals are doing, why they are doing it, and, more importantly, what the potential interactions are between the specific treatment approaches. In addition, stereotypes and misconceptions between the various health care professions exist. This lack of understanding of how and why health care is delivered may result in less than ideal outcomes of medical and dental treatment and might also increase risk for undesired complications.

Therefore, to achieve a holistic approach of the patient, improve outcomes in health care, and increase patient safety, health care professionals must learn to work together.

In 2011, the American Association of Colleges of Nursing, the American Association of Colleges of Osteopathic Medicine, the American Association of Colleges of Pharmacy, the American Dental Education Association, the Association of American Medical Colleges, and the Association of Schools of Public Health formed an expert panel that developed Core Competencies for Interprofessional Collaborative Practice. The competencies were based on the principle that "interprofessional collaborative practice is the key to safe, high-quality, accessible, patient-centered care desired by all."[4]

THE NEW COMMISSION ON DENTAL ACCREDITATION COMPETENCIES

The Commission on Dental Accreditation (CODA) in the United States recently approved several new dental curriculum competencies to reinforce the importance of a multidisciplinary approach to dental care. These competencies promote the proficiency of dental providers in oral cancer screening (Comprehensive General Dentistry, CODA 2-23 b), adequate dental care of special needs populations (Patients with Special Needs, CODA 2-24), and improved communication between dental providers and other health care professionals (Interprofessional Health Care, CODA 2-19). These new competencies became effective in July 2013. Thus, dental schools are working toward the implementation of the new competencies. The question that comes to mind is: Who has adequate training and skills to teach the new competencies?

THE CASE FOR ORAL MEDICINE

In the next few paragraphs we will try to demonstrate the role **oral medicine** could play in interprofessional

education (IPE). Oral medicine is the discipline of dentistry concerned with the oral health care of medically complex patients including the diagnosis and management of medical conditions that affect the oral and maxillofacial region. Oral medicine experts care for patients whose underlying medical conditions affect oral health and delivery of dental care. During the delivery of care, the oral medicine expert must communicate with other health care professionals to share information about a patient. This information exchange usually allows for safer dental care, prevention of health complications resulting from the dental treatment, and also prevention of undesired outcomes in the oral cavity. A typical example that demonstrates the importance of interprofessional collaboration can be observed with the management of a patient with cancer.[5] In this setting, the communication between the dental and medical teams is of utmost importance for the maintenance of oral and systemic health and the success of cancer treatment.

A recent report[5] released for World Cancer Day in February 2014 indicated the following epidemiologic concerns:

- As a single entity, cancer is the biggest cause of mortality worldwide; there were an estimated 8.2 million deaths from cancer in 2012
- Global cancer incidence over 4 years increased by 11%* to an estimated 14.1 million cases in 2012—equal to the population of India's largest city (Mumbai)
- Cancer cases worldwide are forecast to rise by 75% and to reach close to 25 million over the next 2 decades

Cancer therapies can cause a large number of oral complications. Because of their severity, some of these complications lead to interruption of cancer treatment.[6] This will affect the prognosis of the case. To prevent and successfully manage these complications, the oral oncologist/oral medicine expert must collaborate with the oncology team. All professionals involved in the care of patients with cancer must understand the role of each of the professionals involved. This interprofessional collaboration results in better prognosis and safer treatment for patients with cancer.

Oral medicine training programs are CODA accredited. For dentists to obtain specialty certification in oral medicine, they must go through one of these programs and must also pass the examination of the American Board of Oral Medicine, an independent entity associated with the American Academy of Oral Medicine. As a dental discipline, oral medicine is an integral part of dental curriculum and is taught in every dental school in the United States and in many countries around the world by oral medicine experts. The curriculum includes teaching of the management of patients with complex medical history when interprofessional collaboration is important for successful patient management. For instance, before the dentist provides dental treatment to patients with chronic medical conditions (such as cardiovascular disease, diabetes, rheumatoid arthritis, or lupus) or before the management of patients receiving cancer therapies or patients with HIV-related disease, a consultation with the medical team involved in the care of the patients is necessary. The communication between the dentist and the medical providers is usually coordinated by an oral medicine expert. Other dental groups also involved in the care of patients with such complex needs include the General Practice Residency, Hospital Dentistry, Oral and Maxillofacial Surgery, and Oral and Maxillofacial Pathology, both in the dental school environment and especially when the patients are hospitalized.

Considering the aforementioned factors, the discipline of oral medicine would be willing to take the lead in organizing a joint effort between the various dental groups to teach the new CODA competencies to dental students and dentists and to integrate dental patient care with other medical health care specialties, **the goal of IPE**. Thus, dental education has to adapt to a changing education paradigm that will have to teach the dental profession to work together with other health care professions to provide better outcomes and improved safety in dental care.

THE BASIS OF A PARADIGM SHIFT

Current demographics are more dynamic than ever. In the last few decades, the socioeconomic and health policies implemented throughout the world resulted in entirely different social behaviors, new degrees of mobility, and dramatic shifts in life expectancy and age distribution, leading to a distinctive pool of patients. Understanding a wide range of general medical and surgical conditions has always been vital in the provision of high-quality and safe oral health care. This is particularly relevant within oral medicine, considering that it is the field of dentistry that focuses on the oral health of medically compromised patients and the diagnosis and management of medically related disorders and conditions affecting the oral and maxillofacial region (including salivary gland disorders, oral mucosal diseases, and orofacial pain syndromes). To fully understand the ongoing paradigm shift with regard to the teaching of dentistry and IPE, we must consider the following 3 aspects:

- Demographic and socioeconomic development
- Clinical assessment and management and its scientific basis
- Malpractice and medicolegal implications