

The insufficient integration of medicine into clinical dental education: a missed opportunity or an ethical dilemma?

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A recent article in JOMS¹ by Dennis et al expressed the opinion that it should be expected that "...a medically compromised patient presenting to a *dentist* for a...procedure *should* receive appropriate consideration of the patient's systemic condition as part of the treatment planning process." The CODA predoctoral accreditation standard 2-14 addresses this matter by specifying: "*Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.*"² The intent of this standard is that the graduate should "*have knowledge such that they can apply advances in modern biology to clinical practice and integrate medical knowledge and therapies into patient care.*"

The ADA's data has demonstrated there is an increasing number of geriatric patients seen by the dentist, which would suggest the importance of ensuring this standard.³ Yet as the volume of medically compromised patients cared for by the dentist is increasing, and the quantity of medical knowledge that a practicing dentist should possess is growing, the time provided for biomedical sciences in the DDS/DMD curriculum has decreased. Numerous papers have commented on the dental curriculum's failure to adequately and appropriately integrate and apply biomedical knowledge in the clinical environment.^{4,5} Others have raised the concern about dentists' dependence on medical consultation in which the dentist requests "medical clearance" without asking the correct questions and understanding the benefit of medical consultation.⁶ The physician as well is asked to provide an opinion about the impact of a surgical/dental intervention for which they have no expertise.

Performing a thorough medical assessment requires an in-depth medical knowledge, and applying it appropriately to the dental patient requires comprehensive knowledge of dental procedures and their systemic impact. Dental

faculty members are mostly very aware of the importance of a medical assessment of the dental school patient that is aging, presenting with multiple co-morbidities, and often taking multiple medications. Additionally, there are many articles published in JADA each year addressing medical management of the dental patient. Lastly, all institutions complete their CODA accreditation documentation such to indicate that they satisfactorily meet the CODA accreditation standards, which require that a graduate is competent in medical assessment.

Unfortunately, some faculty as well as some dentists in the community are not comfortable nor knowledgeable with performing this medical assessment. Could it be that the lack of integration of medicine and dentistry inter-professionally and biomedical sciences and clinical dentistry intra-professionally has existed for such a length of time that the average clinical faculty simply was not exposed to such when they were a student and that they continue to model students in the manner in which they were mentored? The failure of the faculty to model an appropriate behavior towards medical assessment establishes a pattern that simply perpetuates the problem.

Patient safety is a fundamental principle of dentistry and medicine and good patient care is dependent on patient safety and minimizing medical errors, of which an inadequate medical assessment and lack of medication reconciliation are contributory. A medical error has been identified as an *act of commission* which is the result of neglecting or intentionally doing something wrong, or the *act of omission* which is the lack of knowledge or understanding resulting in the occurrence of something wrong.

The dentist has a duty to *do no harm*, which is stated in section 2 *nonmaleficence* of the ADA's Principles of Ethics and Code of Professional Conduct. The code of professional conduct further clarifies that it is dependent on the dentist's "knowledge...to serve their patients and the dentist's obligation of keeping their knowledge...current." This is in alignment with the Commission on Dental Accreditation mission, which is the "*development and administration of standards that foster continuous quality improvement of dental and dental related educational programs.*"

CODA has predoctoral accreditation standard 2-20 that specifically addresses the need for the graduate “to be competent in the application of the principles of ethical decision making and professional responsibility.” This is a conundrum. The diminishment in biomedical sciences and medicine in the dental curriculum is obvious. Giddon and Donoff, and Edwards and Goldblatt in their point/counterpoint manuscript addressing medical care provided in the dental office, all acknowledge that there is a failure to effectively link the instruction in biomedical sciences and clinical medicine to clinical dental practice.⁷

Is there an ethical obligation and are most dental schools satisfying this ethical obligation in providing their graduates with the knowledge to medically manage their patients? Is the educational accreditation process, which is mandating ethical behavior from its students failing to abide by the same principles by inaccurately completing a document attesting to training their students to competence in medical assessment? Or is there simply an unfathomable absence of understanding and disconnect with the fundamentals of medicine and with our medical colleagues? In either case, addressing this issue with fundamental curriculum and clinical practice changes is needed to adhere to the ethical practice of dentistry.

¹ Dennis MJ, Bennett JD, DeLuke DM, et al. Improving the medical curriculum in predoctoral dental education: Recommendations from the American Association of Oral and Maxillofacial Surgeons committee on predoctoral education and training. *J Oral Maxillofac Surg* 2016

² Commission on Dental Education. Accreditation Standards for Dental Education Programs. <http://www.ada.org/en/coda/current-accreditation-standards> accessed 5/24/17

³ Vujicic M, Israelson H, Antoon J, et al. A profession in transition. *J Am Dent Assoc* 2014;145:118-121

⁴ Quock RL, Al-Sabbagh M, Mason MK, et al. The dentist as doctor: A rallying call for the future. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2014;118:637-641

⁵ Baum BJ. Inadequate training in the biological sciences and medicine for dental students: An impending crisis for dentistry. *J Am Dent Assoc* 2007;138:16-25

⁶ Gary CJ, Glick M. Medical clearance: An issue of professional autonomy, not a crutch. *J Am Dent Assoc* 2014;143:1180-81

⁷ Giddon DB, Donoff RB, Edwards PC, Goldblatt LI. Should dental schools train dentists to routinely provide limited preventive primary medical care? Two viewpoints. *Journal of Dental Education*. 2017;81(5):561-570