Teaching Ethics in Dental Schools: Trends, Techniques, and Targets

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Abstract: The importance of promoting ethical behavior in dental students is reflected in the emphasis on formal ethics teaching within the curricula of most dental schools. Over the last three decades, dental educators have addressed the need for ethics training and examined varied teaching approaches. Today, state-of-the-art ethics education has moved from purely didactic instruction to more interactional teaching methods that promote student introspection and group problem-solving. This paper provides an overview of trends in ethics teaching in dental schools and the current teaching approaches advocated in health science schools. In addition, future needs in dental ethics education are explored including the importance of addressing the unique aspects of the dental education environment.

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- A dental school professor is sued for malpractice by a former boyfriend she once treated.
- Your best friend asks you to write a prescription for an antibiotic for his son’s ear infection.
- A dental student must complete an additional root canal in order to graduate but cannot find an appropriate patient by the deadline.
- An indigent patient presents with a cancerous lesion your colleague failed to address because the patient could not pay.
- A former dental school classmate loses his license for narcotics abuse.
- A young dentist is arrested and convicted of insurance fraud.

Ethical and legal dilemmas and violations occur daily in the practice of dentistry. Occurrences of gross violations often surprise and appall those who conscientiously adhere to the profession’s ethical standards. As health professionals we are obligated to appropriately address these sensitive issues when they arise. As dental educators, we are bound to model ethical behavior in our teaching and clinical practice.

The dental profession’s adherence and commitment to ethical behavior is evidenced by the American Dental Association’s Principles of Ethics and Code of Professional Conduct.1 ADA members must make an individual commitment to abide by this code and its ethical standards to gain and be worthy of society’s trust of the profession. As dental educators, we are required to provide ethics education to our students in order to lay the groundwork for ethical behavior and practice. To ensure this occurs, the Commission on Dental Accreditation of the American Dental Association2 identifies Ethics and Professionalism as a requirement under Standard 2 (Educational Program).

While the association between ethics and patient care is an obvious and important one, ethical sensitivity and behavior are also necessary before students begin their clinical experiences. Topic areas in medical ethics teaching have more recently shifted to include student ethical dilemmas such as cheating, alcohol use, and attraction to patients.3 Surveys conducted over the last two decades suggest that the number of dental schools addressing issues of ethics and professional conduct at the inception of a student’s academic experience has increased.4, 5 As with other institutions of higher learning, concern with academic integrity in dental schools has become paramount.6 For dental educators, breaches of academic integrity hit home the need for a strong ethics curriculum, for if we do not convey the seriousness of ethical violations in the classroom, then how can we be confident that our graduates will demonstrate integrity in the practice of dentistry?
As educators, our goal is to promote ethical behavior in our students. Other than serving as role models, our sole means of accomplishing this is to provide ethical knowledge and opportunities for observation and self-examination within the context of examining ethical dilemmas. Assessing our efficacy in this domain is problematic as it is not only difficult to assess and track the ethical behavior of our graduates, but it is difficult to determine the extent to which ethical behavior is related to dental school experience.

The purpose of this paper is twofold. First, it will provide an overview of trends in ethics teaching in dental schools and the current teaching approaches advocated in health science schools. Second, it will examine the dilemmas associated with determining teaching efficacy in this domain. Much of the difficulty in assessing the adequacy and success of an ethics curriculum is a function of how success is defined and how we choose to measure it. Future needs in dental ethics education are also explored.

### Trends in Curriculum Emphasis, Hours, and Placement

Much has changed in the teaching of dental ethics over the last three decades, the first and foremost being emphasis on its importance within the curriculum. In 1985, Ozar noted a "long-standing pattern of resistance to formal classroom instruction in dental professional ethics" (p. 696). This response has been replaced, if not by enthusiasm, then by repeated acknowledgment of the importance of ethics teaching and increases in ethics curriculum content in the dental education process. Some of the most striking changes have been in curricular placement and teaching format. Trends suggest that dental education now commonly includes separate ethics coursework for students, often in their first year of school with instruction continuing beyond year one. This trend is encouraging in that ethics is introduced as a core curriculum component rather than an afterthought.

A review of dental ethics instruction in twenty dental schools conducted in 1969 by Petterson indicated that the majority offered instruction in dental ethics during the fourth year of dental school. In these schools, the range of total instruction was from two to twenty-four hours. Most schools did not have a separate ethics course. Instead, the teaching of ethics was often merged with practice management, jurisprudence, or dental history. In 1969, ethics courses appeared to be primarily rules and lecture based with little opportunity for student dialogue.

In a 1980 survey of U.S. dental schools, Odom found 76 percent of schools surveyed offering ethics within their curriculum. The greatest educational emphasis across schools occurred during the fourth-year curriculum (57 percent of schools indicated that formal ethics instruction was offered during this year), followed by the first year (45 percent), the third year (26 percent), and the second year (14 percent). In 1980, the majority of ethics courses still involved straight lecture format although some courses incorporated case presentation within their ethics curricula.

Odom and colleagues’ 1998 survey of U.S. dental schools revealed some different and encouraging trends suggesting an increased emphasis on ethics training. Results indicated that 91 percent of responding schools included at least one ethics course within their curriculum. In 1998, educational emphasis on ethics appeared to occur in the first year curriculum (61 percent of schools reported teaching ethics in this year), followed by the third (47 percent) and the fourth years (47 percent). Ethics instruction was found to range from one to three credit courses.

Odom emphasizes the need for ethics instruction to begin at year one and continue with increased applicability over the course of students’ training experience. The most recent survey of U.S. dental schools suggests that this early introduction is occurring in more than half of those institutions surveyed. While positive changes have been noted, ethics instruction with respect to contact hours, course content, and timing in the academic calendar appears to differ dramatically across schools. This has also been noted in dental hygiene curricula and within medical schools both in the United States and abroad. Such findings suggest that there is no comprehensively utilized gold standard with respect to ethics teaching in the health sciences.

### Current Teaching Approaches

In an attempt to effectively impart ethics knowledge, instructors have developed and borrowed a
myriad of teaching methods that are not exclusive to dentistry. Today, the teaching of dental ethics has moved beyond dental etiquette to a more interactive and relationship-driven curriculum that promotes introspection and self-knowledge on the part of students and instructors. Introspection and self-knowledge are critical components of emancipatory and practical knowledge.\textsuperscript{14} Emancipatory and practical knowledge are non-technical forms of knowledge. Practical knowledge emphasizes communication and group problem-solving behaviors while emancipatory knowledge emphasizes self-reflection and ethical examination. More recently, the importance of incorporating techniques that foster these forms of knowledge (as opposed to strictly scientific and technical knowledge) has become evident in ethics teaching.\textsuperscript{14} Indeed, the approaches outlined below have been associated with the development of these forms of knowledge as well as successful ethics curricula. Likewise, they lend themselves to creating a balance between a basic ethical foundation and dental practice/professional relevance that has been associated with an optimal dental ethics curriculum.\textsuperscript{5} These approaches are not necessarily mutually exclusive and many are used in combination within courses.

Case-Based Learning

Case-based learning has been strongly promoted in medical school ethics instruction.\textsuperscript{3} Perkins et al. suggest that the best means of teaching medical ethics is via true patient cases.\textsuperscript{15} This approach appears to be endorsed by most dental educators as a means of capturing the attention of its students and making ethics instruction clinically relevant. Optimal ethics and law education in medical schools has recently emphasized the need for student-instructor interaction, particularly elicited from case-based approaches that enhance clinical relevance.\textsuperscript{11} Educators have strongly advocated the use of panels and case-based analysis within medical and dental curricula.\textsuperscript{3,18}

Workshops, Small Groups, and Problem-Based Learning

It has been suggested that traditional teaching methods employed in ethics curricula do not serve physicians or practitioners as they should. Dibbern and Wold\textsuperscript{16} suggest that medical students’ ethics training is best conducted in a workshop-based format that includes active research, reading, and discussion of ethical dilemmas. Group approaches such as conference and workshop formats can facilitate student interactions. Such interactions typically require students to examine and defend their ethical belief systems while also exposing them to the ethical perspectives of their peers.\textsuperscript{16} Teaching approaches have changed significantly as a result. The use of the small-group learning format lends itself to student-faculty dialogue and introspection. It also provides an additional opportunity for academicians to serve as role models for their students with respect to communicating ethical standards and behavior. This type of mentoring continues to be identified as an essential element in effective ethics teaching.\textsuperscript{17}

Numerous teaching techniques have been successfully utilized within the small group context. For example, Fox et al. noted the shift in medical school ethics teaching from standard lectures to small group discussions using “imaginative triggering materials” such as excerpts from the Oprah Winfrey show to student-to-student observation and assessment.\textsuperscript{3} Role-playing has also been identified as an effective teaching method in ethics and professionalism.\textsuperscript{18}

The use of problem-based learning (PBL) groups to teach medical ethics has also been successfully utilized in medical school curricula\textsuperscript{19} and provides equally opportune learning experiences in dental education.

Peer pressure is an example of an ethical dilemma that may be best addressed within the small-group format. It has been identified as a significant factor in students’ hesitation to report the ethical violations of their peers.\textsuperscript{6} For this reason, ethics teaching should involve discussion of peer pressure and ideally should include opportunities for role-play or modeling, which is best done in a small-group setting.

Teaching Materials

Within the dental ethics literature, less attention has been paid to specific teaching materials for dental ethics. Ozar\textsuperscript{7} suggests that ethics reading assignments be grounded in the dental literature as a means of maximizing student acceptance. While there is certainly a wealth of dental literature from which to draw, compared to medical ethics there are relatively few textbooks devoted exclusively to dental ethics.
It has been suggested that, for ethics education, a narrative approach (e.g., stories) may create the optimal setting for student reflection. Through the use of stories, students are encouraged to consider the overall context of ethical dilemmas rather than examining these issues as isolated events. The use of narrative in the medical school curricula is well documented even beyond the use of case studies and includes the use of literary stories to emphasize the intricacies of interpersonal relationships and emotions. This has not been reported in the dental ethics literature perhaps due to the lack of literary works on predominantly dental subjects. However, Marquette University’s School of Dentistry utilizes student journal writing as a means of examining ethical dilemmas. The use of this type of teaching tool should be a welcome change from the old lecture-based standard in that it is driven by the development of the very skills associated with ethical reasoning and moral decision making.

Tools that facilitate observational learning have also been advocated in ethics teaching in medicine and in dentistry. These include the use of taped and live video of both real patients and “patient” actors.

Interdisciplinary Teaching

The inclusion of an interdisciplinary focus in teaching ethics has been suggested in medical specialties. With respect to ethics education in medical schools, Fox et al. note that an interdisciplinary approach to teaching that utilizes instructors from varied disciplines (e.g., ethics, medicine, psychology) is a consensus in the field. They state that “interdisciplinary education underscores the need for physicians to value the perspectives of people from varying backgrounds and sets an example for subsequent interprofessional collaboration” (p. 764). Browne et al. reported on the successful development of an interdisciplinary ethics course offered to students in the health science schools, including dental students, at the University of British Columbia. They reported that an interdisciplinary approach that utilized lecture and panel presentations in conjunction with small-group seminars was rated as “excellent” by the majority (75 percent) of students, while the remaining 25 percent rated their experience as “good.” Such approaches can provide student dentists with valuable insight into ethical decision-making as well as important exposure to the multidisciplinary team process.

Measuring Curriculum Success

As in medical school ethics training, there is no agreed-upon assessment tool to measure efficacy of ethical training in dental school. Although knowledge and behavior are two separate constructs, ethical and unethical behavior can sometimes provide a gauge of ethical knowledge. As educators, we have no simple means of determining the role that motivation and underlying values play in influencing students’ ethical behavior. For this reason, we must teach to provide the groundwork for ethical decision-making. Beyond test scores, we must also consider and examine, wherever possible, two important variables—ethical behavior and unethical behavior of our students and graduates. Our hope for maximizing ethical behavior in our students lies in our ability to gain as much understanding as we can of those who exhibit these behaviors.

Ethical Behavior and Sensitivity

Clinical evaluations and ratings of student-patient interactions most often serve as the measure of professionalism and ethical behavior for dental students. This has occurred, in part, due to the lack of a single, simple assessment tool. Bebeau’s theory-driven and seminal work in ethics is innovative and critical to understanding dental student perceptions and needs in this domain. Unfortunately, while moral reasoning and ethical sensitivity may be measurable, the time commitment required to comprehensively, validly, and longitudinally assess it for each student renders it an impractical option for dental education particularly in light of national faculty shortages. Other techniques that have been utilized to assess ethical behavior include the use of blinded videotape reviews of patient-resident interactions and scored videos of students role-playing patient-dentist scenarios.

Unethical Behavior

Gross unethical behavior tends to be easier to quantify than ethical behavior if only because of reported ethical violations. Nonetheless, no statistical reports have surfaced regarding the relationship between academic violations and professional violations in dentistry. Likewise, there is no reported data
to determine the relationship between ethics performance in dental school, be it didactic or clinical, and professional/ethical violations. However, if past behavior is the best predictor of future behavior, then the concerns of dental educators regarding breaches of academic integrity are aptly placed.

In a 1998 survey of academic deans, Beemsterboer et al. examined issues of academic integrity in U.S. dental schools. Eighty-six percent of schools surveyed reported having one or more reported/investigated case of academic dishonesty. While this most likely does not capture the true prevalence of ethics violations for all schools, it does suggest that if a dental ethics curriculum effectively teaches ethical behavior, learning and practice are two different phenomena. The two areas of academic dishonesty cited most frequently were cheating on exams and falsification of treatment records. Academic deans also indicated that they believed academic dishonesty cases would increase. It is unclear if this is secondary to increases in violations of academic integrity, increases in reporting such violations, or a combination of these factors.

With respect to the practice of dentistry, the occurrence of ethical and professional violations also suggests that dental ethics has either not been taught well to these violators or more probably that knowledge and behavior are distinct and sometimes unrelated constructs. For example, the Office of Professional Medical Conduct in New York State reported forty-three dentist violations for 1999 (February 1999 to December 1999). The state licensing board in Pennsylvania reported sixty-eight disciplinary actions of corrective measures taken from January 31, 1996 to June 18, 1998. The majority of these violations in both states were serious enough to result in license suspension for varying periods of time, although the nature of some violations resulted in license revocation. While the educational backgrounds of these individuals are not known, the majority most likely had graduated from a dental school with an ethics curriculum and had passed the ethics content of their licensing exams.

**Needs for the Future**

**Endorsement and Underlying Messages**

The endorsement of a dental ethics curriculum is essential for its success. The explicit and implicit messages given by faculty and administration should be carefully examined within each school’s academic curriculum. Ozar states that while “the curriculum cannot, of course, be dominated by courses in professional ethics, an occasional lecture spread out over four years will tell the students quite clearly that these are not important matters” (p. 699). Likewise, Petterson suggests that the hiding of ethics within other courses may result in students’ perceiving ethics as unimportant. For this reason, more intensive approaches to ethics teaching should be advocated. Most ethics educators agree that the strongest need in creating an effective ethics curriculum in any health science school is the institutional support of ethics instruction at the dean’s level.

Hafferty and Franks stress the need to examine the hidden curriculum within the socialization of medical students. Dental educators may impart a more meaningful and effective experience as well, if they consider the less obvious and often unintentional messages that may emanate within their dental schools. That is, we must examine what is being taught between the lines—didactically, clinically, and even in our choices for case studies. As instructors, do we close our eyes to student cheating on an exam, ignore plagiarism among students or peers, tolerate inappropriate behavior towards students or patients? Do we contribute to the ethical dilemmas faced by students (or ethical violations) as we watch them fight for patients to fulfill their clinical requirements? Behaviors and messages like these can sabotage ethics teaching efforts.

For some institutions, the unique and often necessary features of clinical training in dental education may foster ethical dilemmas for students. A curriculum that is numerically driven as a means of achieving clinical competency (and graduation) for its students runs the risk of patients being perceived as procedures or numbers and of students prioritizing based upon procedures and deadlines rather than patient needs. Thus, the very ethical values we hope to impart may be challenged by the educational approach we endorse. For these reasons, dental educators must be cognizant of the potential dilemmas while fostering an academic environment that maximizes optimal patient care. As role models, faculty emphasis on providing comprehensive care is critical. In addition, many students need guidance from their mentors with respect to the pacing and tracking of their clinical progress in order to avoid rushes to complete procedures in order to graduate.
Identifying Student and Curriculum Needs

Jett states that the “big ethical decisions are easy. . . . Where dentists find themselves in a gray zone is in the more obscure realm of practice philosophy and standard of care” (p. 47). This statement highlights the difference between ethical teaching, ethical learning, and ethical behavior. I suggest that the type of dentist Jett referred to was also the type of dental student that benefited from a solid ethics curriculum. That is, the majority of students will benefit from an interactive, case-based format that examines ethical dilemmas while emphasizing faculty-student dialogue and introspection. Mastery of the ADA Code of Conduct does make the “big ethical decisions” easier to recognize and easier to identify acceptable professional responses. Yet there exists a minority of dentists, many of whom have this knowledge base, who fail to practice ethical behavior. Can or should we target these few students within our ethics curricula? If so, how do we successfully address such a small number of individuals? It may help us to recognize that we may be teaching to different subsets of students: those who utilize or will utilize ethical training, and those who will not. Granted, the latter is an extremely small subset but one that must be acknowledged if we are to uphold our ethical and professional obligations to society.

Continuing Education

Regardless of the student’s level of mastery of ethics knowledge, continuing education is critical to maintain competency and ensure lifelong learning. In a survey of pediatric surgery residents, Robin and Canianio found that while the majority of respondents (86 percent) reported that they felt competent to handle conflicts in clinical practice, 47 percent could not accurately or confidently answer routine bioethics questions involving children. While clinical bioethics teaching was not required in the residency curriculum, findings suggest that the ethical knowledge base obtained in graduate school (e.g., medical school) should be reinforced over time.

Conclusion

Hafferty and Franks emphasize the distinction between ethics education and ethical conduct. Just as medical ethics education cannot guarantee ethical physicians, dental ethics education cannot guarantee ethical dentists. Certainly students who choose to practice unethical behaviors can be quite well versed in ethics knowledge. This does not preclude dental educators from striving to enhance ethics education.

The history of dental ethics education demonstrates the profession’s commitment to promoting the ethical behavior of dentists. Significant strides in both content and approach over the last quarter century indicate that, in many dental schools, ethics is being taught early and often and in a format that emphasizes self-reflection and moral reasoning. The examination of students’ academic and practice outcomes including violations may provide us with some insight into the relationship between ethics teaching and the ethical behavior of students. While we may not be able to ultimately assess how well we have taught ethical behavior, as educators we can model ethical behavior and provide a forum for examining ethical dilemmas and decision making for our students.

REFERENCES