Banning Live Patients as Test Subjects on Licensing Examinations

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Abstract: The use of live patients on the licensing examinations was a part of dentistry for almost the entire twentieth century and continues up until today. Considerable new debate about the appropriateness of using live patients as test subjects began in the mid-1990s and culminated in the passage of a resolution in the American Dental Association’s year 2000 House of Delegates calling for an end to this practice by the year 2005. The live patient examination tests a narrow range of clinical skills, creates ethical dilemmas for candidates, for the host institution, and for the profession, and is unable to distinguish between those ready to assume independent practice from those who are not yet at that level of competence. There are other ways to test for such readiness including proposals in New York State to substitute a postdoctoral year or mannequins in place of live subjects. The public and the dental profession will be better off by developing alternative licensing tests to the use of live subjects.

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This paper argues against a long-standing tradition in dentistry: the use of the live patient to test irreversible clinical procedures on licensing examinations. This tradition is an outmoded way of testing for three reasons: 1) the live patient examination tests only a narrow range of clinical skills that does not reflect the complex responsibilities of the dentist in contemporary practice; 2) the use of live patients as test subjects is not in line with today’s ethical standards; and 3) the current live patient examination does not conform to good testing practices because it cannot be standardized.

Testing a Few Clinical Procedures on Live Patients Is Not Reflective of Practice

For initial licensure in dentistry, each state requires an examination to verify that those individuals who have completed the predoctoral program are sufficiently competent to be licensed to practice dentistry. Historically, the content and format of the clinical examinations have been grounded in a narrow view of the scope and emphasis of dental practice. This view of the profession is highly technique-oriented. It considers dentistry primarily as a set of narrow clinical restorative techniques. Unlike other surgeons, dentists are required to demonstrate both manual dexterity and intellectual ability, both as applicants to dental school and as applicants for licensure. Such requirements and the persistent overemphasis on this unique body of mechanical skills on the clinical examination foster an inaccurate view of the surgical aspects of dentistry versus the surgical aspects of medicine. While manual dexterity is important and it is core, a one-time live patient examination does not provide the appropriate setting to test for this skill.

The interrelationship between the dentist’s education and his or her ability to work on humans as measured by the licensing process has been lost. Unlike the written National Dental Board examination, which has constantly evolved and improved to reflect more accurately contemporary knowledge in its exam content and applied testing methods, the clinical licensing examination has not changed in its basic methodology or concept, still insisting on the use of live patients to test irreversible clinical procedures. As the knowledge basic to the dental profession developed, so too did the scope of the education provided for its practitioners. Throughout this evolution of the profession, however, a tacit acceptance
of the central role of the licensing examination has been to test a few mechanical clinical skills on live patients. The few procedures tested no longer reflect the complexity of today’s practice.

As the profession continually redefines its scope of knowledge because of scientific advances, the profession must also redefine the knowledge and skills that must be measured to evaluate the competence of recent graduates seeking to become members of the profession. Today, clinical licensure examinations are being called into question. The questions include not only what such clinical tests measure, but also whether that which they purport to measure actually and accurately reflects the core knowledge necessary to the contemporary practice of dentistry. Both dentistry’s professional practice community and its teaching communities now question whether a disconnect exists between the profession and the testing agencies.

That such a disconnect could occur is not surprising. In most ways, the progress of the dental profession parallels that of medicine. As the science upon which professions are based evolved, academic institutions developed to train society’s physicians and dentists. What constitutes an accredited dental school has shifted from a narrow set of requirements in the past to a broad set of expectations based on the advances in science and pedagogy. The requirements for a Class A dental school as promulgated in 1916 differ dramatically from those of today. Not so in the evolution of the clinical licensing examinations when it comes to the use of live patients to test a narrow range of irreversible clinical procedures. The former requirements, set by the Commission on Dental Accreditation (CODA), required dental schools to reshape themselves to respond to the evolving expectations and demands of society and an ever-expanding knowledge base. In fact, CODA reviews and changes its policies and procedures to reflect this same reality. However, clinical licensing agencies have not evolved sufficiently and remain mired in outmoded testing practices, most obvious being the use of human subjects for testing purposes.

The clinical procedures that graduates are expected to perform on live patients do not conform to what schools teach, what research suggests, or what practitioners do. Long after clinical procedures have been replaced by newer modes of practice, clinical examinations require testing of those outdated procedures on live patients. For example, in the not-so-distant past, long after gold foils were no longer performed in practice or taught in dental schools, they were listed and encouraged as a procedure for testing candidates. Today, a new controversy exists on how incipient carious lesions, the disease of choice to demonstrate clinical abilities on clinical examinations, should be treated. New research casts doubt on the irreversible nature of incipient lesions. The method of treating the incipient carious lesion is changing to a much more conservative chemotherapeutic method from a more radical surgical approach. Treating such lesions radically on licensing exams actually ignores recent research findings rather than tests for good clinical skills. In fact, there is a testing-practice mismatch that undermines the credibility of the profession.

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**Current Live Patient Exams Do Not Meet Today’s Ethical Standards**

Over the past twenty-five years, what constitutes acceptable behavior of professionals towards their patients has changed radically. There appears to be an inherent conflict between creating a situation on a licensing examination that could lead to a poor patient outcome and the professional obligation to ensure a good outcome. Using live patients to test for a lack of competence is out of line with patient expectations and society’s norms as expressed in Patients’ Bills of Rights.

A principle feature differentiating a profession from other types of occupations is the existence of and adherence to a set of ethical standards for conduct. Section 3 of the American Dental Association’s Principles of Ethics and Code of Professional Conduct discusses the principle of beneficence: that is, “The dentist has a duty to promote the patient’s welfare.” According to the code, “professionals have a duty to act for the benefit of others.” Further, “the most important aspect of this obligation is the competent and timely delivery of dental care within the bounds of clinical circumstances presented by the patient, with due consideration given to the needs, desires and values of the patient.” For a profession, the ethical issues raised by the use of live patients as a test subject for the purpose of licensure supersede the other salient questions this practice raises.

The pressure created on the candidate by requiring the use of live patients causes a conflict between the best interests of the test taker and the best
interests of the patient. Those seeking licensure have much at stake and may even compromise ethical standards in order to seek out and convince patients to sit for the licensing examination. As applicants begin screening patients on the basis of their suitability for the licensure examination, clearly the importance of “the competent and timely delivery of dental care” can be compromised. With the needs of the applicant foremost, it can be argued that the “needs, desires and values of the patient” receive little or no consideration in this process. A patient’s care is often unnecessarily delayed for the purpose of securing a necessary resource for the applicant, a test subject. Delaying treatment could result in a number of negative sequelae for patients. Have patients in need of restorations suffered as a result of delayed treatment? This is but one example of what is reported that desperate candidates for licensure will do in order to obtain patients as test subjects. Others report such additional lapses of ethical standards as unnecessary or duplicative radiographs, payments to coerce patients to be subjects for examinations, or promises to provide follow-up treatment that is never provided.

Dental schools too are put in an equally compromising ethical and legally untenable position by the use of their facilities for the clinical portion of the examination. Can the school be held liable, morally or legally, for untoward incidents that occur during this exam? Is a school ethically or legally obliged to follow up on reported failures of unlicensed candidates? How should a school act on information reported by board examiners that test takers have performed inadequate or unacceptable procedures on human subjects in their facility? Who assumes such responsibilities, delivering a morally and legally minimum standard of care offered to human subjects on licensing examinations? How can the examining agency fulfill this obligation since it is not set up to provide treatment?

Current Live Subject Exams Do Not Conform to Good Testing Practice

A single clinical procedure examination on a live patient does not reflect competence in performing that procedure. In fact, regional boards report that most applicants pass within twelve months of failing a first examination without remedial coursework. This means that something other than the candidate’s ability was the cause of the original failure. While the regional examinations have tried to build consistency in evaluation across test takers into the live patient examination, it is an impossible task because of the basic flaw in the examination’s design—that is, that the use of the live patient presents a different clinical situation for each patient.

There is no way to standardize an examination for all test takers using different live patients; each applicant for licensure, therefore, takes a different examination. Failures based on patient noncompliance, case appropriateness, or a patient not appearing for the examination are common and create an undue hardship on the test taker who must then wait for several months and at great personal expense to sit for another examination. There is no way to compensate for this inherent variability, and failures related to these live patient issues do not mean that a candidate is unable to demonstrate competence in the procedures tested. For these patient-related reasons alone, other fields long ago, including the dental specialties, eliminated live patients on qualifying examinations. According to a survey of graduates after they have been in practice, the licensing examination is not a valid assessment of their abilities.

Experts in the field of testing realize that determining an individual’s competence is far more complicated than a one-point-in-time clinical examination. Repeated observations in a variety of clinical situations combined with evidence over time of an individual’s ability and judgment to use behavioral, ethical, and surgical skills are what constitute competence. Schools commonly report that students judged by faculty to be among the finest clinicians over the longer course of their training still fail the clinical test. The manner in which live patients are used on today’s licensing examinations does not test a candidate’s ability to treat a patient under practice conditions because the examination setting is highly artificial.

The eight arguments against the use of live patients raised by Buchanan in 1991 are as true now as they were then and bear repeating again: “1) the impossibility of standardizing human subjects anatomically, physiologically, pathologically, and psychologically; 2) the diminishing supply of clinical patients with specific examination needs; 3) delays in appropriate treatment-deferring treatment while reserving a patient’s treatment for a licensure examination; 4) the expense of human subjects: fees paid
to patients and compensation for transportation and living expenses; 5) patient discomfort with length of examination procedures, which are, of course, much unlike private practice; 6) risks associated with procedures (for example, radiographs on human subjects); 7) liability of unacceptable treatment/inappropriate care; and 8) liability (risks) of treating a human subject in a highly stressful environment."

A New Paradigm for Licensure

Few argue today that the current clinical examinations have any connection to contemporary practice or protect the public. The tradition persists only because there is a lack of agreement on other examining techniques to assure the public that practitioners are able to provide safe treatment. It is interesting to note that “practical” examinations are required of no other surgical profession, neither medicine nor podiatry. Use of such a testing mechanism makes the practice of dentistry seem more analogous to procedure-based occupations like hairdressing. In fact, in New York State, only dentistry and cosmetology are required by the State Education Department to have a live subject as part of their examination for licensure!

In October 2000, at its annual meeting in Chicago, the American Dental Association’s House of Delegates adopted a policy calling for the elimination of licensure testing requiring the use of live patients by the year 2005. The call for the elimination of the live patient by the ADA reflects a major responsibility of a profession, which is to regulate itself. Such a call is a powerful expression that the current use of live patients is no longer acceptable to the profession. All segments of the profession including the regional testing agencies and individual state licensing boards need now to determine other ways for testing candidates for initial licensure.

In the mid-1990s, the Institute of Medicine Report on the challenges facing dental education and editorials in journals began the call once again for a re-examination of the licensure process. Several ways have already been proposed and will continue to be proposed in the near future until a new norm is reached to judge whether graduates are ready for independent practice.

In New York, for example, the State Dental Association is supporting legislation that answers the fundamental question: Is a clinical examination on human subjects necessary to evaluate the clinical competency of an applicant for licensure? The state association has proposed the successful completion of one year of postdoctoral experience in an accredited and supervised patient care setting as a substitute for the clinical portion of the licensing examination. Assessing the new graduate’s performance on an ongoing basis for overall competence and growth over time is a superior way of determining readiness for independent practice. Bills introduced into the 2001 and the 2002 legislative sessions permit the substitution of one year of postdoctoral experience in accredited programs for the clinical portion of the examination. Another bill introduced in the New York State Legislature permits candidates to substitute mannequins for the live patient on any clinical examination.

While these bills in New York have not yet been acted upon, their introduction and support by the state dental association and the dental schools in the state reflect the growing realization that the current way of testing for initial licensure must change. Others are proposing the use of computer simulations instead of live patients. Such discussions will lead to an end to the use of live patients as subjects to test irreversible clinical procedures and the creation of better ways to determine whether graduates are ready for independent practice. They will thus constitute a significant step forward for both the public and the dental profession.

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