The Interrelationship of Accreditation and Dental Education: History and Current Environment


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The dental school accreditation system plays a critical role in maintaining the quality of dental education and, in turn, the vitality of the dental profession as a learned, self-regulating profession. One of the purposes of accreditation is to ensure that contemporary developments in science, technology, and society are incorporated into educational polices and processes. This article reviews the history of the dental school accreditation system and suggests that accreditation processes and standards need to be revised in order to address the challenges facing dental education.

History of Accreditation

In 1918, at the request of the surgeon general of the Army, the Dental Education Council of America set up a system to classify dental schools as A, B, or C. The council was an independent organization made up of representatives from three national associations: examiners, teachers, and practitioners.

Concerned with ending commercialism in dental education, the council classified proprietary schools as a C, because they lacked “educational and professional reputability.” In 1916, twenty-one of the nation’s fifty dental schools were privately owned, but by 1924 only four were proprietary. In 1920, the council ruled that “a dental school organized and conducted for-profit, either to individuals or to a corporation, whether in the form of unduly large salaries or rentals or of profit for direct distribution, does not meet the standard of fair ideals, as interpreted by the Dental Education Council of America.”

Class A schools were required to have a four-year curriculum of 4,400 hours and to have buildings and equipment valued at $300 or more per enrolled student. Further, if 25 percent of graduates failed the licensing examination for two successive years, a school lost its Class A rating.

In 1938, the American Dental Association (ADA) became the parent organization for the Dental Education Council, and in 1975, the Commission on Dental Accreditation (CODA) was formed. Membership of the commission was expanded from the original three groups—examiners, educators, and practitioners—to include a public member, representatives from dental specialty organizations and from dental hygiene, assisting, and technology, and a student representative. From 1940 to the present, schools have been classified based upon site visits and compliance with the accreditation standards. The current classification system includes “initial accreditation” for developing programs and two types of approval for fully operational programs: approval with and without reporting requirements. The latter designation indicates deficiencies that must be corrected in eighteen months.

The commission routinely conducts validity and reliability studies on the accreditation standards and considers revisions with input from the communities of interest, including dental schools. Hearings on proposed standards revisions are conducted at the annual meeting of the American Dental Education
Association, American Dental Association, and other national dental meetings. When a major revision of the standards is conducted, an ad hoc committee may be appointed to draft the document. The commission itself is recognized by the U.S. Department of Education, which issues national regulations for recognition of accrediting agencies.

Stages in the Process of Accreditation

Our review of the accreditation process shows how it has evolved through four distinct periods. (It is important to note that, in this review, we are referring to major change to the accrediting standards and process. We recognize that the accrediting agency constantly updates and undertakes minor revisions to the requirements/standards. We also recognize that the guidelines and rules that set out how a site visit should be conducted and how site visit reports are reviewed as well as how schools prepare for site visits are all part of the accrediting system, but we are mainly restricting this review to the written standards that schools are expected to uphold.)

The themes of the four periods were stability, 1940 to 1970; flexibility, 1970 to 1985; standards specificity, 1985 to 1997; and standards simplification, 1998 to the present.

The Era of Stability: 1940–70

The early guidelines and requirements, or what are now called standards, reflected the findings and conclusions of the Gies report to the Carnegie Foundation in 1926. Specifically, dental schools were required to be based in universities. Schools “can not be successfully and satisfactorily conducted as a business enterprise” nor “be incorporated as a non-profit institution.” This requirement assured the public and the profession that the era of proprietary schools was over and that dental schools, like medical schools, had to have the same scholarship as other university disciplines. The standards on instruction indicated that “dental education must meet the tests of a true university discipline.” And “dental service must serve biologic ends” and demonstrate “understanding and appreciation of oral and systemic relations in both health and disease; of the biologic significance of restorative and replacement procedures; and of the interdependence of the dentist and the physician in meeting health needs.” These quotes are from the first-ever accreditation standard issued by the ADA; the Council on Dental Education was the accreditation authority until 1975 when a separate commission for accreditation was established.

The Council on Dental Education, the accrediting body of the time, did not require a specific ratio of teachers to students. Instead, standards indicated that accrediting committees “will be concerned about the number of members of the faculty who give their full time to the institutions” and that the “number and educational qualifications of teachers, teaching load, the number of teachers in relation to the number of students, faculty scholarship, research activities” will be examined.

Regarding the curriculum, the Council on Dental Education indicated that it did not want to standardize the curriculum of dental schools, but it placed minimum and maximum limits for a four-year course of not less than 3,800 hours nor more than 4,400 hours with ten free hours per week. The standards did highlight “various areas of knowledge in diagnosis, in prevention, in therapeutics and in prosthesis.” However, there were only eighteen expected subject areas.

These statements were intended to ensure that dental education continued to move from a proprietary, nonscientific experience into a university discipline on par with medicine, law, and engineering. They reflected the philosophy that dental treatment should be based on biological principles rather than simply mechanics. In 1964, standards were revised to reflect the need for schools to pay attention to clinical income and to provide student experiences with the utilization of dental auxiliaries. As noted in 1971, these standards were in place with minor revisions over a long period of time, and site visit committees had a clear understanding of what was expected of dental schools.

The Era of Flexibility: 1970–85

In the early 1970s, substantial change was occurring in health professions education and, in fact, in all higher education. The Federal Health Manpower Acts of the 1960s and 1970s and the educational practices of the period of stability were under attack from a variety of sources. Students were demanding a curriculum that was more relevant to the care of patients, and there was increased societal pressure to equalize educational opportunities for women and minorities. These new forces led to dramatic changes in the accreditation process. In general, the
educational world created after World War II dramatically changed during what is sometimes called “the turbulent ’60s.” There were dramatic parallel reflections in the accreditation process.

The ADA Transactions of 1969 and 1970 described these changes in a report, “Revision of Requirements for an Accredited School of Dentistry,” as follows:

Council’s 1969 annual report titled “Changing Concepts in Dental Education” outlined briefly some of the influences which are bringing about significant changes in the dental curriculum. . . . The National Symposium on the Dental Curriculum presented a series of papers describing changes being planned by several dental schools and some which are actually under way in others. This acceleration in curriculum experimentation and change has made it increasingly urgent that the Council on Dental Education [which was then responsible for the accrediting process] re-appraise and propose revision of the dental school Requirements for consideration by the House of Delegates.5

The long-held view that dental schools must be based in universities shifted to accommodate new schools opening in academic health centers that were not in universities. The Council on Dental Education preferred formal university affiliations; “however, it accepts the development of dental education programs which are under the auspices of a state system of higher education, but not formally part of any university.” The term “system of higher education” refers to state recognition or charter by the state.6

Other changes made accreditation requirements more flexible. For example, new admission standards encouraged the selection of educationally diverse students by eliminating specific required predental courses. This allowed the enrollment of students who were not science majors, as well as more women and underrepresented minorities. Also, schools were encouraged to appoint student representatives to their standing committees.

Curriculum requirements were also changed to permit more flexibility. The list of required subjects was dropped. Instead, standards called for the general education of students and encouraged courses in the behavioral sciences and electives. The requirements also made provision for a “compressed” curriculum, e.g., the three-year programs that were encouraged by the Health Manpower Act.7,8 Hospital and extramural experiences became a requirement. The stated rationale for the latter was the following: “The Commission believes that such experiences assure an appropriate education experience that may not be attainable or meaningful, if the entire educational experience of students is limited to the physical confines of the dental school.”9

While, on the other hand, CODA provided more flexibility in requirements, it also encouraged schools to provide courses in new subject areas (e.g., the behavioral sciences, electives) and to recruit a more diversified student body in terms of race, ethnicity, and gender. Taken together, these changes all reflected the changes taking place in the larger society and in higher education. Many of the trends set up under these guidelines are still very much part of dental education today, including electives, behavioral sciences, and some extramural experiences.

Throughout the 1970s, there was a gathering storm of contentious issues in dental education and in the profession. Some of the more important were a large increase in the number of enrolled students, a perception of an excess supply of dentists, the profession’s role in Medicaid and absence of a role under Medicare, a number of schools (fourteen to be exact) changing to three-year programs, and internal school conflicts over the curriculum. The 1983 American Dental Association strategic plan report9 described these issues well and moved in directions that changed accreditation again.

The Era of Specificity: 1985–95

From 1960 to 1978, first-year enrollment in dental schools grew from 3,616 to 6,300, and the number of schools increased from forty-seven to fifty-nine. Because of rapidly rising dental education costs and the loss of federal subsidies, the ADA’s 1983 monograph on the future of dentistry correctly predicted a steep increase in tuition and the closure of schools. As part of these financial problems, a decline in the dramatic increase in numbers of full-time faculty (34 to 44 percent of the entire faculty) was anticipated. Concerned about fewer full-time faculty, the report stated that “any institution which hires less qualified faculty . . . will be faced with accreditation problems.”10 Likewise, growing student indebtedness made curricular changes problematic in the absence of a better understanding of the competencies necessary to practice dentistry. This was especially true of efforts to produce graduates oriented toward prevention and a broader knowledge of general dentistry.11
Schools at the extremes of subject area instructional hours were urged to determine whether those extremes were “effective in reaching the instructional goals of their institutions.”

The 1983 future of dentistry report compared course hour changes between 1976 and 1981. Even though several schools converted to four-year programs from three years, the large increase in curriculum hours was stunning. The mean number of total curriculum and clinical hours increased by 16 percent and 20 percent, respectively, and the variability in total and course hours among schools was wide. Even in view of the fact that several schools converted back from three- to four-year programs, the comparison of mean hours added back—from 3,982 total hours to 4,636 total hours, or a 16 percent increase—created a changed paradigm for academic dental institutions. This period of time was complex and complicated for dental education, with rapid change occurring in response to the external environment, not too dissimilar from the most recent ten-year period extending forward through today. The ADA Transactions in 1985 reported that “prompted by the 1983 Future of Dentistry report and its recommendations, the Commission established an ad hoc committee to study and revise the Requirements and Guidelines for Dental Education Program. . . . A totally revised program, Accreditation Standards for Dental Education Programs, incorporating many of the suggestions from the 1983 Future of Dentistry report, was endorsed.”

Further, accreditation standards moved from the general statements seen in the era of flexibility to more explicit guidelines. Specifically, the general list of requirements was replaced by seventy-nine standards and substandards that were very explicit and left little doubt as to what was expected. The preamble to the accreditation standards was accompanied by a definition of terms; for example, when a standard contained a “must statement,” it indicated mandatory compliance, vs. “should” for highly desirable. Levels of knowledge were defined as “in-depth” and “familiarity” and levels of skill as “competent” or “exposed to.”

The standards extended to the system of clinic administration. For example, they required schools to develop and distribute to all patients, students, faculty, and staff a written statement of patients’ rights and a formal record review system. Under financial resources and facilities standards, patients were expected to serve the educational needs of students, generate income for the school, and participate in clinical research. Clearly, these standards were a radical departure from previous accrediting guidelines and left little room for schools to adapt to local situations. The standards were very definitive on how schools should conduct themselves and what students must learn and represented what had been learned from the 1976 curriculum study and the 1983 strategic plan. As such, these national study panels from 1976 and 1983 led to translations of their outcomes into the accrediting documents prepared by an ad hoc study group of the Commission on Dental Accreditation. The commission’s ad hoc study group carried out what appeared to be best practices from the era of flexibility. The new standards, however, were viewed as a means to ensure that all schools complied with minimum benchmarks of operation.

Over the next ten years, schools expressed considerable discontent with these standards. They viewed the standards as too specific, leaving little room for individual school differences or innovation. Schools were also dissatisfied with the recommended eighteen-month self-study process in preparation for the accreditation site visit. They considered the time and expense excessive for a so-called “voluntary” accrediting process. At the same time, beginning in the late 1980s and into the 1990s, accrediting agencies were under scrutiny by university academic leaders, viz., presidents and provosts, who viewed the accrediting agencies, especially the specialized (professional) accrediting agencies, as too intrusive into what was considered university prerogatives. National guidelines for accrediting agencies shifted to emphasize the outcomes of the education process and demonstration that graduates had reached specified competencies. As a result, the process of educational and institutional practices as part of the learning environment was deemphasized for accreditation. The Commission on Dental Accreditation, attempting to balance these forces along with other specialized accrediting agencies, again revised its guidelines.

The Era of Standards
Simplification: 1998 to Present

In 1998, a new set of standards was put into place that reduced the previous standards from seventy-nine to fifty-five. Equally important, many details in the earlier standards were eliminated. For example, the requirement that all deans and department chairs have full-time appointments was dropped. In addition, the fifteen specific requirements under
clinical education were reduced to two, and compliance with these two standards was easier because of the removal of specific language. More specifically, separate requirements for managing handicapped, medically compromised, and socially and culturally disadvantaged patients were eliminated and replaced by one standard that graduates must be competent in “providing oral health care within the scope of general dentistry as defined by the school [emphasis added] for the child, adolescent, adult, geriatric and medically compromised patient.””

However, the new standards attempted to guide schools’ clinical education and clinic operations in directions recommended by the 1995 Institute of Medicine report, *Dental Education at the Crossroads.* The new standards in their preamble reaffirmed and emphasized “the importance of educational processes and goals for comprehensive patient care and encourage patient-centered approaches in teaching . . . and operations that support patient-centered care.”

Under the new system, site visit teams placed less emphasis on educational processes and more on outcomes. The problem is that measuring outcomes is difficult, and schools have wide latitude in establishing outcomes that they can achieve. The lack of standardized definitions for outcomes in relation to process may well account for the substantial differences among schools in course content, format, and hours. This is especially evident in the clinical experiences of graduates in different areas of clinical dentistry. Thus, current accreditation standards do not explicitly require all students to graduate with basic levels of experience and achievement in relation to important and more explicit curricular areas.

**Current Environment**

It is important to recognize that, historically, the dental school accrediting process has clearly shown the capacity to assess complex scientific and social changes and to develop standards that respond appropriately to these changes. This system has greatly strengthened the quality of dental education and scholarship and, in turn, the dental profession. Accreditation has been a lever for change at critical times during the twentieth century.

However, to deal with the significant challenges facing dental education, the time has come again for another comprehensive review and revision of accrediting standards. The evidence of the need for change is compelling. At a general level, CODA needs to be mindful of several recent reports that make a case for change, including the ADA’s 2001 *Future of Dentistry* report,15 the surgeon general’s report on the oral health of the nation,16 the Institute of Medicine reports *In the Nation’s Compelling Interest*17 and *Crossing the Quality Chasm,*18 and the Sullivan Commission’s report, *Missing Persons: Minorities in the Health Professions.*19

Further, the American Dental Education Association’s President’s Commission report in 200320 captured many of the important issues, and currently, ADEA’s Commission on Change and Innovation in Dental Education is studying ways to redirect education and align research findings with instructional methods.21 The findings from the Robert Wood Johnson Foundation and The California Endowment-funded project, *Pipeline, Profession, and Practice: Community-Based Dental Education,*22 along with the Macy Foundation Study on New Models of Dental Education, also inform process and policy.23-26

Specifically, there are a number of issues that need to be addressed by the accreditation system as pointed out in the above reports. First, the decline in resources is forcing some schools to reduce their full-time basic science and clinical faculties and to delay needed infrastructure investments. At some point, these reductions and delays will seriously impair the quality of dental education. The accreditation system needs to have standards that foster the careful review of resources and expenditures in relation to acceptable educational processes needed to produce competent graduates.

Second, and related to the first point of declining resources, the accreditation system should follow the historically sound guidelines of the Gies report on the scholarly engagement of full-time dental faculty. If dentistry is to continue as a learned, self-regulating profession, dental schools must provide their full-time faculty with the same scientific training and research opportunities as other members of the academic community.

Third, CODA with its communities of interest needs to decide if the development of dental schools outside the framework of traditional research universities is in the best interest of dentistry and the American people. The earlier era of for-profit schools and schools unaffiliated with research universities took a long time to resolve, and a careful look at current events on the proper setting for dental education is required. Thus, the commission needs to develop standards that define the requirements for strong academic dental schools.
Fourth, and now moving to the level of curriculum, it is clear that there are many educational advantages to community-based dental education programs, if properly organized and managed. All dental students and residents should experience the delivery of high-quality dental care in efficiently run delivery systems. Community clinics and extramural practices offer this opportunity, and it needs to become a core dental education experience explicitly required and specifically regulated through accrediting guidelines.

Fifth, and related to clinical education, schools have a special opportunity to advance clinical education and at the same time address some of their pressing financial problems with the development of internally operated patient-centered delivery systems, in which the patient becomes the center of concern. Again, the accreditation system needs to encourage schools to move in this direction.

Sixth, it is very clear that the United States has undergone a demographic revolution and that the diversity of dental school students, residents, faculty, and staff needs to mirror the diversity of the larger society that the profession serves. While there is no simple solution to meet the diversity challenge, the accreditation standards must challenge schools to establish programs that effectively and substantially create and sustain a diverse academic community.

Seventh, dental schools have always played an important dental safety net role in providing care to underserved and medically disabled populations. Every dental school shares the philosophy and responsibility of increasing access to care, especially for underserved populations. Declining financial resources may make this tenet of service and education more challenging.

Eighth, the science and technology related to the prevention and treatment of dental diseases are changing rapidly. Schools must prepare students to understand and use these new scientific developments in the care of communities and patients. The approach designed for the Macy study panels on contemporary curriculum should be used further to identify and address the major gaps in the basic science, behavioral science, and clinical curriculum.

Ninth, there is tremendous variation among schools in curriculum hours and content. Accreditation needs to determine the meaning of this variation and identify schools that are not keeping up with the rest of the field.

Last, but far from least, educational methods and technologies are making major progress, and if effectively implemented, they have the potential to significantly improve dental school educational programs and, in turn, the capacity of graduates to become critical thinkers and lifelong learners. For example, uses of course tools that serve as electronic repositories for materials and the cross-institutional sharing of materials could provide increased instructional efficiencies and savings.

Obviously, this list of issues could go on and on, but the point seems clear: there is a strong and compelling need for accreditation as a system to assist dental schools in moving through their current challenges and on to a new and more promising model of dental education. Of course, this is not the responsibility of just the accreditation system. All the major dental organizations and individual leaders and other stakeholders need to assist in solving these problems. But the accreditation system does have a special responsibility, precisely because it is so influential.

CODA should also reassess the policies and procedures currently used to site visit and accredit schools. Instead of simply emphasizing difficult to measure outcomes, explicit process standards are needed for all core basic medical and dental science and patient care areas. This is the only way to ensure that all dental graduates have the same required basic education. In revisiting the accreditation standards, CODA needs to also reconsider the requirements for schools to undertake the CODA-recommended school process to conduct a self-study and preparation for the site visit. Schools report significant amounts of faculty and administration time going into such preparation and excessive costs to prepare for accreditation. Balancing the benefits of schools conducting periodic review of their academic affairs against the time and cost to prepare for an accreditation review requires analysis and should be an equally important part of any comprehensive review of the accreditation standards themselves.

More broadly, CODA needs to revisit the principles underlying dental education because, ultimately, they are reflected in the accreditation standards. The Macy study was conducted on the basis of the principles presented in the Gies report (see Table 1). If these principles are to continue to be the bedrock for dental education and practice, it is time for dental educators and practitioners once again to recommit to these principles or with careful exploration thoughtfully modify them.

Throughout its history, the dental school accreditation process has been able to capture the
Table 1. Principles underlying educational reform

1. Dentistry is a learned, self-regulating profession that is comparable to but organizationally separate from medicine.

2. Every school must be an integral part of a university, and the majority must be based at research-extensive universities (Carnegie Foundation definition), where faculty scholars advance the sciences underlying the practice of dentistry and pass this knowledge on to students, residents, and others.

3. Schools must have the resources needed to
   - recruit and retain adequate numbers of well-qualified faculty;
   - provide faculty sufficient incomes, space, equipment, time, and administrative support to pursue their scholarly activities;
   - recruit and maintain a diverse student body and faculty;
   - maintain their physical plants; and
   - invest in new educational technologies and learning resources.

4. The teaching, research, and service programs of all schools must contribute to reducing oral health disparities.

5. Dental students need the same basic understanding of human biology and behavior as medical students and advanced knowledge of the basic, social, and clinical sciences relevant to the diagnosis, prevention, and treatment of oral diseases/conditions in healthy and medically compromised patients.

6. Clinical training should include adequate time in community-based, patient-centered delivery sites, providing evidence-based care to diverse groups of patients, efficiently.

7. The curriculum should prepare graduates to enter practice; however, in the future, this could shift to preparing students to enter general or specialty residency programs.

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