

The history of orthodontic education: A century of development and debate



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The history of orthodontic education in the United States spans more than 100 years. A number of exhortations have been repeated over the years by some of the best minds in orthodontics. First, our standards of excellence must be maintained. Angle set a standard for the specialty by demanding that students in his proprietary school achieve a high level of knowledge in growth and development, biomechanics, and mechanical skills; that standard is no less important today in postgraduate orthodontic departments. Second, orthodontics, and we need to be concerned with bone and the dentofacial complex. To be sure, much has changed about our specialty and its biologic foundations; we must adapt along with the discoveries in biology and the innovations in technology. But we should always strive for excellence—in ourselves and our specialty. (Am J Orthod Dentofacial Orthop 2015;148:901-13)

The history of orthodontic education in the United States spans more than 100 years. Today's orthodontists are most familiar with the issues that have caught our attention over the last decade: the shortage of orthodontic faculty and whether we are opening too many new postgraduate programs. Today's orthodontists might reasonably assume that these same issues were important in previous decades. It is most interesting to read accounts of the discussions and thoughts that took place up to 90 years ago as our specialty matured and developed.

Orthodontics has been an academic discipline since the 18th century, when Fauchard published a systematic assessment of orthodontics. Kingsley, who is often considered the father of orthodontics, lectured to students on the benefits of orthodontic treatment in the 1870s. Other educators such as Eugene Talbot and Simeon Guildford published textbooks on orthodontic

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Copyright © 2015 by the American Association of Orthodontists. http://dx.doi.org/10.1016/j.ajodo.2015.09.004 treatment for students in the dental colleges. There were no postgraduate programs in the discipline.

Edward H. Angle (Fig 1) entered the scene in the 1880s, when he taught orthodontics in several dental schools in the Midwest. He developed his system of "regulating teeth" and published the first edition of his book, *Malocclusion of the Teeth*, in 1886. However, in the late 1800s, he opened his own school because he was not successful in convincing dental schools to form departments of orthodontics. The Angle School of Orthodontia opened in St Louis and, from 1900 to 1911, produced many outstanding orthodontists. Dr Angle developed a rigorous curriculum that included anatomy, histology, zoology, and art. He also required preliminary examinations to those who sought to learn the specialty at his school.

Because of the Angle School the demand for such schools increased, and many proprietary schools opened to fill the need for orthodontic specialists. However, most of these schools lacked the biologic foundation of the Angle School and tended to rely solely on mechanical training. These proprietary schools were viewed with disapproval by the profession because of the limited training they provided, and efforts were made to bring specialty training into university dental schools.

THE 1920S

The predominant theme of the 1920s was the proper education of orthodontists. To understand the issues

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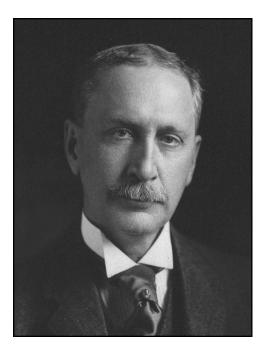


Fig 1. E. H. Angle.

surrounding this concern, it is important to realize that dental education was also evolving, and it was unclear just how orthodontics would fit into the larger sphere of dentistry.

Although orthodontics had, until this time, been a part of the predoctoral curriculum, many people thought that postgraduate education would be necessary. Martin Dewey¹ addressed the New York Society of Orthodontists in 1924 and gave a sampling of the variety of thoughts and opinions regarding postgraduate education in orthodontics. Dewey reported that some thought that a 1-year internship would be sufficient. Others believed that "unless the student comes in actual contact with the clinical cases of various classifications, while under treatment from beginning to end, can he hope to obtain sufficient knowledge and skill to be of any value" (p. 529). Finally, "one year's experience in clinical work is not sufficient to acquire adequate knowledge to treat an orthodontic case successfully from beginning to end, much less learning anything of diagnosis and prognosis" (p. 530). Dewey concluded that there was so much "disagreement in dental schools, universities and teachers that it is practically impossible at the present time to agree upon any one definite plan" (p. 530). He cautioned, however, that any program must not only produce enough orthodontists to meet the demands of the public, but also be acceptable to the majority of those desiring to become orthodontists, in regard to both the length of the program and the requirements

for completion. He concluded by recommending a short, intensified course of 8 to 10 weeks for the general dentist who wants to practice orthodontics, and a long course of a year or more that would lead to a master's degree.

In 1926, Joseph Eby² gave a lengthy talk to the American Society of Orthodontists in which he reviewed trends and problems in orthodontics, including education. He believed that orthodontics required a "sweeping reform" and needed to establish some "truths of natural laws" that formed the foundation of orthodontics. Eby thought that orthodontics had become a purely mechanical exercise that was too dependent on opinion for its guidelines. Research was needed to determine the correct amount of force for moving teeth because, in Eby's words, "there can then be one and only one proper degree of assistance, whether it be mechanical, muscular, or otherwise" (p. 627). He maintained that teeth are "but incidental objects" whose positions were corrected, but that orthodontists must first be concerned with bone. Eby believed that orthodontic education was part of this general problem, and he proposed roles for both undergraduate and postgraduate education. In undergraduate education, orthodontics should be placed in the context of all the other disciplines to give students "a true vision of orthodontia" (p. 630) so that they could diagnose malocclusion and undertake interceptive treatment. The postgraduate program should educate students to treat patients in a university. He saw 2 types of postgraduate programs: one for the new graduate, who was not constrained by an office or a family and could spend a year at a university, and another for the experienced practitioner, whose maturity and judgment would allow him to learn by a correspondence course over a longer period of time. Thus, he called upon the specialty to establish "uniform principles of treatment" to define the specialty.

That same year, James McCoy,³ a faculty member at the University of Southern California, wrote some suggestions for orthodontic education. McCoy thought that the trouble in predoctoral education stemmed from 2 problems. First, orthodontics was thought to involve manipulation of mechanical devices only, so that teaching this topic was limited to this. Second, so few hours were devoted to teaching orthodontics as opposed to prosthetic dentistry (64 vs 608) that predoctoral instruction was greatly restricted to the most basic principles. McCoy stressed that until enough of the biologic background could be incorporated, orthodontics could not be properly taught. A corollary to this dictum was that as long as orthodontics was considered a "minor" course, it could not be properly taught. He recommended that 3 courses be taught to undergraduate Download English Version:

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