

Early Dental Journalism: A Mirror of the Development of Dentistry as a Profession

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ABSTRACT

The rise of dentistry from a mechanical trade to a profession has often been attributed to the so-called "triumvirate" of organization, education, and journal literature. This essay focuses on one part of the triumvirate, examining the role of journals in the growth of dentistry as a profession, from the appearance of the first journal in 1839 to the publication of the *Index to Dental Literature* in 1921. Rather than discussing the history of individual titles, it identifies some of the broader issues and problems that confronted early dental journalism. The evolution of dental journals from trade house publications to independent scientific literature mirrored the movement toward professional status in dentistry during the late 19th and early 20th centuries.

DENTISTRY is a very old profession. Evidence suggests that it has been a separate field of health care since antiquity [1]. Yet dentistry can also be considered very young. This is especially apparent in America. Although dentists have been practicing in this country since before the Revolutionary War, dentistry did not become an established profession until 1840. At that time, three developments catapulted dentistry from a mechanical trade to professional status. These three elements—organization, education, and journal literature—form what is often referred to as the "triumvirate" of American dental history [2, 3].

In 1839, the first dental journal appeared: the *American Journal of Dental Science*. The first dental school, the Baltimore College of Dental Surgery, was established in 1840. That year also marked the birth of the first official dental organization, the American Society of Dental Surgeons. These three "firsts" set dentistry apart from the medical profession and transformed it from a medical specialty to a profession in its own right. Of these three firsts, dental journalism provided the greatest impetus to forming dentistry as a profession. The evolution of dental journals from trade house publications to independent scientific litera-

ture parallels trends in the dental profession in the late 19th and early 20th centuries.

According to Trueman, "it is fortunate that dental journalism made its advent in the United States, for nowhere else in the entire world were conditions so favorable" [4]. Dr. Trueman then cites the well-ordered public school system, the progressive spirit of the country, and the lack of traditional social contrasts as reasons that dental journalism emerged in this nation rather than elsewhere. Whatever the reason, dental journalism grew more quickly here than anywhere else in the world. As early as 1883, twenty dental journals were being published in the United States, which accounted for more than half of the dental publications at the time. So it is appropriate to focus on this country as the center of dental journalism.

Even in the early days of dentistry, practitioners realized the importance of literature to the strength and status of a profession. And while there were many who criticized early dental journalism, the literature is filled with articles and editorials echoing the theme that dental journals, in spite of all their faults and weaknesses, played a vital part in the making of the profession. The following opinion from the *Pennsylvania Journal of Dental Science* is representative: "Notwithstanding, however, the difficulties and discouragements attending journalism, we think it is capable of demonstration that there is no power more efficient in the intelligent growth and scientific development of a profession than not only good journals but a good supply of them" [5]. Dr. E. S. Chisholm also supported this view. He stated that the journals were necessary for education and communication in the dental profession. "I see naught to condemn, but all to praise, for I am convinced that our journalism has done the greater part of making our profession what it is. The periodical literature has been instrumental in making us an educated profession, familiarizing us with a common language by which we understand each other" [6].

The growth of the journals parallels the growth of the dental profession. By 1919, there were approximately forty-five current dental journals; within twenty years, the total exceeded eighty. However, a graph of the growth of dental journals over the century from 1839 to 1939 would not be a smooth curve; during this 100-year period, many more journals were introduced and withdrawn shortly thereafter. A bibliography prepared by Dr. William Bebb in 1919 included articles from over 250 dental periodicals, living and dead. Similarly, the dental profession grew sporadically, with new societies and organizations being formed, changing titles, and disbanding throughout this century. But by 1923, the American Dental Association claimed 33,500 members.

The question remains: why did so many early journals fail so quickly? Financial difficulties are often cited as the primary reason. Trueman states that "among the host of dental journals, now deceased, were many that started with high ideals, lots of enthusiasm, and well-equipped with everything but the essential finances and ability to properly use it" [7]. Also, many of these early journals were started by state and local organizations that lacked not only the financial reserves but also the editorial support to compete against national publications. However, many practitioners during the period blamed the failure of so many early journals on the dental manufacturers, the so-called dental depots.

A CONFLICT OF SPONSORS

Probably the outstanding feature of dental journalism was the conflict between independent and trade publications, also referred to as nonproprietary and proprietary, respectively. This conflict lasted throughout the late 1800s and early 1900s. Trade publications were supported by large dental manufacturing companies, which used them to advertise new dental products, materials, and instruments. Because they served as an advertising medium, these journals were usually much lower in price than independent journals, which relied on subscriptions and dues for their existence. Trade journals were also characterized by having well-known dental practitioners as their editors, while independent journals, often sponsored by state and local societies, had to depend on their members for editorial assistance. The transition of dental journals from ownership by dental manufacturers to independent publications reflected the metamorphosis of dentistry from a trade into an independent profession.

In the century after the first dental journal was introduced, the dominance of trade journals came to be considered intolerable by many leaders of the profession. Most influential of these was Dr. William J. Gies, who made a speech in Boston in 1916 that marked a turning point in dental journalism. His peppery language included the following:

Trade journalism in a profession is a form of vulgar autocracy. When it is benevolent, it pauperizes; when it dominates, it demoralizes. Like autocracy, it exploits those who trust it; it seeks to destroy those who challenge it [8].

While proprietary journalism had been discussed at least since the 1880s, it was never so hotly contested as during the decade in which Gies issued his bitter denunciation.

In contrast, trade journalism had its supporters within the profession. While many dentists favored trade journals for their low subscription cost, others felt that they were attentive to the interests of the profession rather than those of the manufacturers. An editorial in the *Dental Register* said: "For though they are far from perfect, yet we are not ashamed of them. They will compare very favorably with the periodicals of any other profession; and there has been no period in their existence that they would not" [9]. This editorial appeared the same year that this journal, originally nonproprietary, was sold to a dental manufacturer because of financial difficulties!

Even when Gies made his speech in 1916, dental practitioners admitted that while trade journalism was not an ideal method of professional publication, these journals played an important role in the evolution of dental journalism, and should be valued for that reason if no other. Dr. George Clapp, who refuted Gies' speech, raised this question: "Does not Dr. Gies take the position of one who kicks at the ladder which has made his ascent possible? Let us see whether the system of journalism he condemns has not made possible the ambitious effort of today" [10]. Indeed, trade journalism did fill the need for dental literature until the profession was large enough and interest in journalism great enough for the independent journals to survive and grow.

Before 1900, the dental profession had made several attempts to change its literary situation. However, all early efforts to publish an independent journal failed. These journals either soon ceased to exist or were sold to dental manufacturers, who were able to publish them more profitably. According to Mills, "every venture in the nonpro-

proprietary class has eventually met with financial disaster, or has been taken over by dental concerns, and the continuation made possible. They have saved to the profession a literature that covers almost a century, and notwithstanding the bitter criticism that has been launched, the strongest protagonist of nonproprietary journals must candidly admit that to proprietary journalism we owe our boast that dentistry has a literature of which we are proud" [11].

Even dentistry's first journal had a traumatic history and was eventually rescued by a dental manufacturer. The history of the *American Journal of Dental Science* is representative of what happened to all of the early independently published periodicals. Introduced in 1839, it was published at a loss for twenty years by a devoted committee that lacked financial expertise. It was then sold to Snowdon and Cowman, dental dealers in Boston. During this time, the price of a subscription rose from \$3.00 to \$5.00. This publication was revived again and again in different series until it was finally discontinued in 1909. Similarly, the *New York Dental Recorder*, *Independent Practitioner*, and the *Dental Register of the West* were started as independents but were soon sold to dental manufacturers. Others, however, like the *Pennsylvania Journal of Dental Science* and the *Dental Obturator*, did not find sponsorship among the dental depots and merely ceased to exist.

In contrast, the trade house journals existed for many years and were considered successful by most of the dental profession. A good example is *Dental Cosmos*. Introduced as the *Dental Newsletter* in 1847, this journal was published by the S. S. White Company of Philadelphia. Its subscription price never exceeded \$2.50, although the amount of advertising decreased. It was highly esteemed, and for many years was widely considered the dental profession's leading journal. It is especially interesting that *Dental Cosmos* was incorporated with another journal in 1936 and survives today as the *Journal of the American Dental Association*. Other successful and respected trade journals included *Dental Items of Interest* (1879-1953), *Western Dental Journal* (1887-1917), *Pacific Coast Dentist* (1893-1933), and *Dental Brief* (1896-1913).

REVERSING THE TREND

The proprietary journals were obviously better able to survive and build their reputations than were the independent publications. Yet by 1900, the domination by the trade journals had begun to

be reversed, as the profession increased its efforts to establish a literature independent of the dental manufacturers. Within twenty years, many of the proprietary journals had fallen out of favor and were discontinued.

McCluggage cited the introduction of the *Journal of the National Dental Association* in 1915 as evidence that the transition from trade to independent journalism was complete [12]. However, Clapp said that publication of the *Journal of Dental Research* in 1919 was a more significant event [13]. Other writers favored 1912, when the *Journal of the American Dental Association* appeared, as marking the advent of modern dental journalism.

According to McCluggage, "during the twentieth century, dental periodical literature has changed from a literature dominated by proprietary and commercial magazines to a literature dominated by the official organs of dental societies" [14]. While the previously successful proprietary journals were ceasing publication in the first half of the century, the *Journal of Dental Research* and the *Journal of the American Dental Association* survived; they exist today under their original titles. Independent journals now form the basis for dental literature.

The controversy attending early dental journalism indicates the disorganization and lack of leadership within dentistry from 1839 to 1939. Whether the problems of dental journalism were the cause of this lack of organization and leadership or an effect of it is unclear. However, it was obvious to some dental practitioners that an established base of dental literature was needed to provide stability to the newly formed profession. Consider Trueman, who complained that

the dental profession in the United States is a mob. It lacks the inspiration, the discipline, and the unity conferred by a thorough and effective organization. It has no mouthpiece. It has no systematic means or methods for reaching its scattered members [15].

The introduction of two independent journals sponsored by national groups, the *Journal of the American Dental Association* and the *Journal of the National Dental Association*, marked the advent of new leadership and organization within the dental profession.

FEAR OF "INFLUENCE"

Why did the dental profession protest so vigorously against the proprietary journals? Many practitioners were afraid that the manufacturers

influenced the contents and the quality of these journals, refusing articles that would have harmed the sale of their products. Yet according to Thompson, there was no evidence to support this fear.

Do the publishers of our journals really and truly control and dictate what the contents of the pages will be? Do they oblige the editors to refuse articles that might injure the sale of goods or that criticize the policy of the house? It is curious that there have never been any special cases brought to make these charges specific and direct [16].

Not one of the editors connected with a trade journal ever admitted or even implied that the manufacturers exerted editorial control over these journals. In fact, many editors praised the manufacturers for their lack of interference in the publication process.

Many practitioners also felt that the dental manufacturers were responsible for the poor literary quality of the journals. Thompson argued that this was not the fault of the manufacturers, but of the editors in charge of these publications.

The truth is that if the standard of our journalism of today is weak and low . . . this is not due to the meddling of the publisher but to weak and careless editing. The publishers do not care what is in the pages of the journals so long as they feel sure that the journal ranks well and has a good subscription list. It is the editorial genius that shapes its character in a literary sense [17].

Whether the blame lay with publisher or editor, it is significant that there was much criticism of the content and literary style of early dental journals.

Practitioners writing on early dental journal literature seem to have been as concerned with the number of dental journals as they were with their quality. Some equated the growing number of journals with the strength and continued development of the profession. Others felt that more journals assured the independence of dentistry from medicine. However, the most frequent argument supporting the growth of dental journalism was that journals were valuable for informing the profession of scientific discoveries. Harryman stated: "My own experience is, that not one day's practice passes without my having great cause of gratitude to one or more of our professional benefactors" [18]. Clearly, the ever-increasing number of journals did facilitate the reporting of new materials, procedures, and treatments.

While some dental practitioners worried that there were too few publications, others believed that there were too many. A common criticism was that an article often appeared in several different journals. This was naturally thought to limit sub-

scriptions, and the practice of republication also meant that less space was available for new scientific information.

The quality issue was sometimes used as an argument to justify reducing the number of dental journals. An editorial in the *Pennsylvania Journal of Dental Science* stated:

We have too many. They for the most part hash up the old things, and copy from each other, or make new matter too common and trashy. Others are so high or lofty in their notions of what should constitute a good journal, that they would have the thing worked out on a magnificent scale [19].

According to this editorial, none of the journals matched the needs of the dental profession in either style or content. However, while many journals may have been repetitious, lofty, or lacking in literary merit, they did give a voice to a profession that had previously been silent.

SECRECY TO FREE EXCHANGE

Prior to 1840, dentistry had been a mechanical trade in which secrecy and charlatanism prevailed. Knowledge of procedures and instruments was guarded jealously by early practitioners. However, the advent of dental journalism provided a medium for scientific exchange. And as dental journalism grew, dentistry became a better organized, more egalitarian profession. With increased publication about scientific discoveries and professional activities, there was less need to hoard information. The trend toward exclusiveness had been reversed, and the dental profession continued to grow by sharing its knowledge.

As the number of journals grew, new writers were encouraged to contribute to the increasing body of knowledge. According to an editorial in the *Ohio Journal of Dental Science*, there was no shortage of talented participants. "We found no increase in the difficulty of finding suitable material in the desired quantities, for it seemed that many had not written, or if they had, had written less frequently than otherwise they would have done, because they felt that the available space would be filled by abler or more experienced pens than theirs. Increase of space seemed to invite their pens and they responded, and thus some of the ablest writers of our profession have been brought out from voluntary obscurity" [20]. The increased number of journals encouraged cooperation and interchange, and contributed to the further evolution of dentistry from a scientific as well as an organizational standpoint.

Several recent studies suggest that dentistry is not a "reading" profession. As mentioned earlier, dentistry before 1840 was characterized by jealous secrecy and poor communication. Yet even after the profession had become firmly established, dentists were not thought to be making full use of the literature available. The reading habits of dentists in the late 19th and early 20th centuries were significant, however, because they had an adverse effect on the progress of dental journalism. Consider the following statement from an editorial in *Dental Cosmos*: "There is occasion, however, for unfavorable comment on the fact that so few of the profession are subscribers to any dental journal, and the inference is irresistible that the fault is not so much in the journals as in the indisposition of a majority of practitioners to read the current literature of their calling" [21]. The profession neglected its reading; thus overall demand for journal literature was low. There was even less demand for independent journals, with their higher subscription prices.

Dental journalism was also hindered because the profession refused to support publications financially. This is especially true of independent dental journals. In the late 19th and early 20th centuries, the average subscription to a trade journal cost less than \$2.00. A nonproprietary journal was usually much more. In contrast, a subscription to a medical journal could cost from \$4.00 to as much as \$25.00 per year. None of the medical journals at this time was proprietary.

Many dental practitioners felt that having journals available so cheaply through the trade houses kept the profession from producing its own independent scientific literature. Gies raised this question: "Has dentistry been hypnotized by trade journalism—by its cheapness, its convenience, its plausibility, and the clever sophistication of its exponents?" [22]. Evidence supports his position. Even the *Journal of the American Dental Association* was started with no stable source of funding.

ADVERTISING

Advertising in dental journals increased tremendously throughout the late 19th century. The first dental journal, the *American Journal of Dental Science*, contained only six pages of advertisements. However, advertising soon comprised almost 40% of certain journals. For example, an 1882 issue of *Dental Items of Interest* is packed with advertisements for dental rubber, artificial teeth, and gold foil.

Many dental practitioners welcomed advertisements in the journals, while others despised them. Chisholm supported advertising because it informed the profession of new instruments and materials. "We now have about twenty-five journals, which are read by eight or ten thousand dentists and the advertising interest is increased a hundredfold because of the wonderful increase of inventions and appliances. Formerly there was but little to advertise" [23]. Other practitioners tolerated advertising because it kept subscription prices low. However, many complained that advertising detracted from the value of dental publications and tarnished the image of the profession.

The issue of journal advertising reflects another trend within the dental profession during the 19th and 20th centuries. Prior to 1900, practitioners used advertising heavily, often to persuade the public to purchase costly and sometimes dangerous products and treatments. For example, Dr. Thomas Hamilton from Philadelphia offered a tincture "that gives immediate ease to the Tooth-Ache, and cures all disorders whatever in the mouth and gums" [24]. As dentistry grew to professional status, advertising came to be considered inappropriate and unprofessional. This disapproval parallels what happened in early dental journalism.

TRENDS IN DENTAL CARE

Early journals emphasized the mechanical aspects of dental care. They were used to report such discoveries and inventions as the articulator, the rubber dam, and the dental engine, precursor of the modern dental drill. An 1850 issue of the *American Journal of Dental Science* included articles on the use of tin in artificial teeth, designing moulding flasks, and the proper method of adjusting denture clasps. Similarly, the table of contents for the first volume of *Dental Cosmos* (1859) listed articles on plaster, soldering, alloys, filling materials, and tooth extraction. A common criticism of this journal was that it was "too scientific."

By 1900, the emphasis had shifted toward prevention and treatment of dental diseases. An issue of *Dental Cosmos* from 1900 included articles on dental infections, gingivitis, oral pathology, necrosis, and tooth abscesses. This change in focus reflected the profession's increased interest in the biological rather than mechanical basis of dental care.

INDEPENDENCE FROM MEDICINE

Before 1840, dentistry was considered one of the few "specialties" of medicine. At that time, the

trend in the medical profession was toward being a "generalist." Physicians prided themselves on being skilled in all areas of medical practice, and it was not unusual for one person to chair several departments within a hospital or medical school. Although medicine had a fairly large number of publications by the early 1800s, a national medical society was not established until 1847.

The medical profession was attempting to maintain several potential specialties under its "generalist" umbrella in 1840. Dentistry was one of the smaller factions that wanted independence. Not surprisingly, formation of the American Society of Dental Surgeons, the first organization of "medical" specialists, caused a permanent rift between dentistry and medicine.

Similarly, dental journalism contributed to the separation of dentistry from the medical profession. Prior to the publication of the *American Journal of Dental Science* in 1839, articles on dental topics were part of the general medical literature. According to Asbell, from 1790 to 1839, "there had appeared more than 125 separate articles in over 50 medical publications, on such dental subjects as dental caries, anatomy, pathology, teething, artificial teeth, dental and oral surgery. The authors were the leading surgeons, physicians and dentists of the period" [25]. Through dental journalism, dentistry expressed its desire to control its own literature. This further display of independence widened the gap between dentistry and medicine, and enabled dentistry to disengage itself as a medical specialty and develop along a path similar to medicine, but separate from it.

INDEX TO DENTAL LITERATURE

Perhaps what gave legitimacy to dental journalism, and thus the dental profession as a whole, was the creation of the *Index to Dental Literature* in 1921. By this time, over 250 dental journals had been published in America alone. Although many of these journals had their own indexes, there were too many to be searched efficiently. There was also concern within the profession that some of the written record of dental history would be lost forever without some form of classification (medical journals had been indexed since 1880 in the *Index-Catalogue of the Library of the Surgeon-General's Office* and its subsequent publications).

The index to dental periodicals was conceived by Dr. Arthur D. Black, who in 1898 devised a classification scheme for dentistry based on the Dewey Decimal System. Throughout the next decade, he successfully applied this scheme to several small

collections of articles. Encouraged by his efforts, a committee met in 1908 to discuss the possibility of an index encompassing all dental journal literature. However, lack of interest and support from the profession, as well as financial difficulties caused by inadequate subscriptions, delayed publication of the index until 1921.

The first volume of the *Index to Dental Literature* included sixty-five journal titles and covered the years 1911 to 1915. Although it had appeared years later than originally planned, what was most significant about the *Index* was that dentistry now had a method of accessing its journal material, as well as a record of its scientific and organizational development. An index devoted to dental literature further emphasized the separateness of dentistry from medicine, proving that dentistry had indeed been established as a profession.

CONCLUSION

Early dental journalism provided the dental profession with much more than a written record of its scientific and organizational development. Through the dental journals, dentistry was able to establish itself as an independent profession rather than a specialty of medicine. These journals brought the dental profession together, encouraging communication and cooperation, thus altering the atmosphere of secrecy and charlatanry that had prevailed before 1840.

The evolution of dental journalism also mirrored some trends within the dental profession during the late 19th and early 20th centuries: the change in dentistry's focus from mechanical to biological principles of dental care; the disapproval of advertising; and the development of dentistry into a more organized, more egalitarian profession. Most important, the controversy attending trade journalism parallels dentistry's transition from commercialism to professionalism.

Thus, the dental profession owes a great deal to its early journalism. Dental journals were the impetus for dentistry's change from a mechanical trade to a profession. However, while these journals were vital to the evolution of the dental profession in the late 19th and early 20th centuries, they are equally important today because they form an excellent foundation for current journal literature.

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