The controversial journey of Abraham Flexner

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The Flexner report is widely considered one of the most significant reforms of medical education in this century. Its author, Abraham Flexner, is reputed to have "brought to medical education in North America professionalism in the scientific method."1 Yet, Flexner may not have applied this same standard of "professionalism" to his own research. His report is the product of suspect means and questionable motives, and its legacy has been one of equivocal consequences.

**Criticisms**

In 1910, the Carnegie Foundation for the Advancement of Teaching published *Medical Education in the United States and Canada*, popularly known as the Flexner report.2 In the first part of the report, Flexner discussed the history of medical education in the United States, described what its proper basis should be as well as what the actual basis was, recommended a curriculum, discussed the financial aspects of medical education, proposed a plan for reconstructing medical education, and commented on "medical sectarianism,"2 p. 156 state boards of licensure, postgraduate education, and the medical education of women and African Americans. In the second part, Flexner summarized his findings for the 155 graduate and twelve postgraduate medical schools in the United States and Canada he claimed to have visited. He described them with striking and often caustic candor. The equipment at one school, Flexner observed, was "dirty and disorderly beyond description."2, p. 195 He recorded that the department of anatomy at another school occupied an "outhouse, whence the noisome odor of decaying cadavers permeates the premises."2, p. 165 Another institution had "in place of laboratories, laboratory signs."2, p. 165

The publication of the report caused "an immediate and profound sensation" across the continent.1,2, p. 87 such a "rattling of dead bones," Flexner claimed, had "never been heard in this country before or since."4, p. 131 The press delighted in the descriptions of institutions as "criminal inadequate."2, p. 163 Flexner’s observations of "sordid, hideous"5, p. 86 conditions covered the front pages of the Chicago Tribune, the Omaha Bee, the Los Angeles Daily Times, the Knoxville Sentinel, the New York Times, and the El Paso News. When newspapers commented on the report, however, "it was always with the careful use of quotation marks."5, p. 122 noted the New York State Journal of Medicine, for no newspaper "would have dared publish on its own initiative, such a wholesale and intemperate criticism"5, p. 122 out of "fear of the laws against libel."5, p. 122

Medical journals had mixed reactions. The *Journal of the American Medical Association* announced that "[a]lthough there may be statements of detail which might be criticized in the Foundation’s report, generally speaking the statements made are recognized as the truth by those who are in a position to judge."5, pp. 120-21 Other journals, however, were more critical of the report and its suspect “statements of detail.” It was "full of errors," alleged the *Denver Medical Journal*; "a piece of monumental impudence," avowed the *American Medical Compound*; "hasty," chided the *Halifax Medical Journal; unfair to "small and worthy schools," protested the *Medical Sentinel*; and not mindful of recent improvement, according to *American Medicine*.6, p. 537 The *Denver Medical Journal* declared that the report contained "pure, unadulterated cussedness, raw malice, and percolated venom."6, p. 537 Its author was too zealous, charged the *Therapeutic Gazette*, and a "self-constituted censor...and a layman," according to the *Medical Era*.6 p. 537 The *Hospital Bulletin* argued that Flexner was "not a medical man," who, nevertheless, had "conceit of Herculean proportions."6, p. 537

The *New York State Journal of Medicine* berated the foundation for attempting to "dictate the policies," and thereby "threaten the freedom," of medical

Abraham Flexner (1866-1959), whose report on medical education in North America had profound impact.

Photo courtesy of The New York Academy of Medicine.

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schools. It sought “by fiat and imperial edict...to wipe out institutions with the stroke of a pen.”

The foundation’s report, furthermore, failed to credit “the medical profession for the earnest and sincere efforts which it has been making...to improve the status of medical education.” The foundation concluded, “If the methods which the Carnegie Foundation tends to employ in the future may be judged by its recent pronouncements...its benefits are little to be desired.”

The Medical Record similarly decried Flexner’s “sins” of not having discovered “that all these schools, with the exception of a very small and practically negligible number, are in the process of betterment, and that several associations...are working constantly to encourage and force the poorer schools to raise their standards and improve their teaching methods.”

Considering “what tremendous progress has been made” and “that this uplift has come from within,” the Record chided that “the work of Mr. Flexner seems somewhat a waste of effort and a needless expenditure of Mr. Carnegie’s hard-earned money.” Flexner was “unfair” in ignoring “what has already been accomplished” and overlooking the “agencies at work” in improving medical education.

Whether this omission, the Record concluded, “was intentional or whether it is only evidence of a superficial and one-sided investigation, we do not know.” Such criticisms reflect suspicion of, and scorn for, a man who boldly claimed to offer a comprehensive evaluation of North American medical education. An analysis of the means Flexner used, and the motives that inspired him, points to an investigation that may, indeed, have been “superficial and one-sided.”

Suspect means

In 1908, Abraham Flexner was an unemployed former schoolmaster who needed a job. “I was, I confess, prepared to do almost anything of a scholarly nature,” Flexner revealed, since his “resources had been depleted.” He secured a position with the Carnegie Foundation with the help of his brother, Simon, director of the Rockefeller Institute for Medical Research, and President Ira Remsen of Johns Hopkins University.

Flexner had “a very feeble grasp” of medicine, according to Sir William Osler of the Johns Hopkins University School of Medicine, who criticized Flexner’s later investigation of the clinical situation at Hopkins. Osler claimed that Flexner made “many mistakes from which a man who knows the profession from the outside only could not possibly escape.” That Flexner’s remarks showed “a very feeble grasp of the clinical situation” was “not surprising,” since Flexner did not have “the necessary training.” Osler was unable to say whether “unfairness or ignorance” was “the more prevalent” in Flexner’s analysis, “but in either case,” Osler avowed, “gross injustice is done.”

Given Flexner’s lack of “the necessary training,” Pritchett had difficulty in convincing the board of the foundation to accept Flexner. Many trustees felt that either a physician or a better known layman with more experience and knowledge should be in charge. Pritchett confided in Flexner: “I had...to say [to the board] that I must be free to choose my own associates, for whose competency I assume full responsibility.” Pritchett, however, may have later regretted his choice as well as questioned Flexner’s competence. Flexner himself acknowledged that he “might well have been the wrong...
choice.”3, p. 71 Soon after Flexner began his study, Pritchett wrote several letters expressing his concern about Flexner’s ability and character. In one letter to William T. Councilman, professor of pathology at Harvard, Pritchett wrote:

Since [Flexner] has begun work,...a number of criticisms have come to me about him, generally in the way of casting some doubt upon his judgement and indicating somewhat erratic tendencies. There appears also to have been something at Harvard which caused friction.10, p. 608

In another letter, Pritchett reiterated his apprehension: “Within the past few days,...a good many criticisms have come to me concerning him, something to the effect that he is erratic and hard to get along with and somewhat uncertain in judgement.”10, p. 608

Responses from Councilman and others confirmed Pritchett’s suspicions. Councilman thought that Flexner “might be somewhat erratic and probably hasty in judgement.”5, p. 105 Charles Eliot, president of Harvard University, wrote that “in controversial matters [Flexner] arouses strong opposition, partly...by his aspect of eagerness and partly by a certain satirical humor.”5, p. 105 Eliot further divulged that “negotiation in matters which divide opinion strongly is not Mr. Flexner’s forte.”5, p. 105 These aspects of Flexner’s personality were reflected in the report. It had, Pritchett acknowledged, “a somewhat dogmatic appearance” and was “in a few places a little too sharp.”5, p. 111

Flexner began his study in December 1908. After reviewing the pertinent literature for one month, he visited and evaluated the schools in accord with a personal maxim, “Ambulando discimus” (“We learn by going about”).3, p. 149 He spared no effort, proclaimed Pritchett, “to procure accurate and detailed information as to facilities, resources, and methods of instruction.”2, p. viii Flexner later confessed, however, that he used no standard questionnaire and “no fixed method of procedure.”5, p. 75 Although such casual observation conflicted with the professionalism in the scientific method that Flexner claimed to promote, he himself admitted, “Inconsistency never bothered me.”5, p. 291 He would visit several schools and then return to his home in New York to “set [his] facts in order.”5, p. 80

Flexner sought data on five points: (1) what the school’s entrance requirements were and whether they were enforced; (2) the size and training of the faculty; (3) the sum available from endowment and fees to support the institution and how it was allocated; (4) the quality and adequacy of the laboratories and the qualifications and training of the laboratory teachers; and (5) the relationships between the school and its associated hospitals.

A major criticism of Flexner’s fieldwork was that it entailed only a cursory inspection of each school. Many institutions protested that “in the time devoted to the examination of a single school it is impossible to do it justice.”7, p. 316 Flexner occasionally toured facilities unaccompanied by school officials. At one school, Flexner found the janitor and bribed him to open the laboratories, wherein he discovered that each room contained a desk, blackboard, and chairs, but no apparatus.3 He concluded that the school was bereft of equipment without considering that it could be locked up elsewhere. At other times, Flexner visited schools when they were not even in session and when cadavers and apparatus may have been stored in undiscovered places.6 Pritchett, however, dismissed accusations of inaccuracy, explaining that “the labor involved in visiting 150 [sic]...schools is great, and that in the immense number of details dealt with it is altogether impossible to be sure that every minute fact concerning these institutions has been ascertained.”2, p. viii

Flexner was rushed in his research. He admitted that his tour of schools was “swift,”3, p. 74 acknowledging that he finished the inspections “within less than a year.”3, p. 87 He began the fieldwork for his project in January 1909, and completed it sixteen months later, in April 1910. In eight of these months, however, he visited eight or fewer schools per month; for three of these eight months, he visited two or fewer schools per month, and for three consecutive months in the summer, he visited no schools at all. Flexner, therefore, conducted the majority of his visits in the remaining eight months, or approximately 240 days. During this short time, he had to crisscross the continent to conduct comprehensive evaluations of 149 institutions. At that rate, he would have taken 1.6 days, on average, to travel to and evaluate each school. In excluding Saturdays and Sundays, though, he may have had only about 180 working days in those eight months of intense fieldwork, in which case he would have had to allot 1.2 days, on average, to travel to and study each school.

Even more amazing is Flexner’s furious pace during a ninety-day period in which he claimed to have investigated
sixty-nine schools, leaving little time for repose, weekend rest, or travel between geographically dispersed schools. The logistics of Flexner’s whirlwind tour become more perplexing given his penchant to return to New York often to write up his notes. His train must have been fast, and his tours of schools quite brief. Some have questioned whether Flexner actually visited all the schools himself. Historians writing about visits to two North Carolina institutions, for example, refer to only Flexner’s traveling companion, N.P. Colwell, who was unaccompanied by Flexner.6

“You don’t need to eat a whole sheep to know it’s tainted,” countered Flexner.3, pp. 78-79 Insisting that he was not pulling the wool over anyone’s eyes, Flexner defended the feasibility and efficacy of his schedule in the following description of the timing of one of his visits:

In half an hour or less I could sample the credentials of students filed in the dean’s office, ascertain the matriculation requirements..., and determine whether or not the standards, low or high, set forth in the school catalogue were being evaded or enforced. A few inquiries made clear whether the faculty was composed of local doctors, not already professors in some other local medical school, or the extent to which efforts had been made to obtain teachers properly trained elsewhere. A single question elicited the amount of income of a medical school, and a slight operation in mental arithmetic showed the approximate amount available for full-time teachers or for distribution as “dividends” among the practicing physicians who were “professors.” A stroll through the laboratories disclosed the presence or absence of apparatus, museum specimens, library, and students; and a whiff told the inside story regarding the manner in which anatomy was cultivated. Finally, the situation as respects clinical facilities was readily clarified by a few questions, directed in succession—and separately—to the dean of the school, the professors..., and the hospital superintendent — questions which were designed to ascertain the extent to which the school enjoyed rights or merely courtesies in the hospitals named in the school catalog.

In the course of a few hours a reliable estimate could be made respecting the possibilities of teaching modern medicine in almost any of the 155 schools I visited [italics mine].3, p. 79

In “half an hour or less,” could Flexner have thoroughly perused the credentials of a hundred students? Were a few inquiries sufficient to ascertain the abilities of the faculty? Likewise, was a “single question” adequate to assess an institution’s financial status? Could a simple “stroll” through the facilities have indeed disclosed the quality of laboratory instruction? Would a “whiff” have sufficed for telling the story about the quality of instruction in anatomy? Were a “few questions” sufficient for ascertaining the nature of the complex relationship between a medical school and its associated clinical facilities? Could a “reliable estimate” have been made in the course of a “few hours?”

Flexner failed to heed his grandmother, whose proverb admonished him to refrain from leaping to hasty conclusions: “So schnell schiessen die Preussen nicht” (“The Prussians don’t shoot so hastily”).4 When Flexner released his report in June 1910, its repercussions ripped through the medical community. Within three years, twenty-five schools “collapsed to the right and left,”3, p. 86 with more to fall in the following years.3 Between 1900 and 1930, the ratio of physicians to population plummeted by 20 percent.11

**Questionable motives**

Themes in Flexner’s work were sympathetic to the interests of the Carnegie Foundation, the Rockefeller General Education Board (GEB), and the American Medical Association (AMA). The report, for example, attacked proprietary schools, which were usually owned by the faculty and operated for profit. Believing that the interests of business necessarily always conflicted with those of education (even though, in 1890, he had started his own proprietary prep school), Flexner hoped that “this report [would] make plain once for all that the day of the commercial medical school has passed.”2, p. xvi He thought that public funds or private endowments — not fees from students — should be used to pay for teaching, making professors answer to external entities rather than to the students they taught.

Proprietary institutions, supported by fees rather than donations, were self-sufficient and therefore independent of external meddling. Such autonomy was not appreciated by the Rockefeller philanthropy, whose sponsoring family had invested heavily in allopathic...
pharmaceutical companies. The Carnegie Foundation also disparaged commercial schools. Its namesake, the industrialist Andrew Carnegie, declared to Flexner, “You’ve proved medical teaching is a business and I won’t endow anybody’s business.”

Carnegie believed that these men in the business of medical education could not be changed, but Flexner replied: “I don’t propose to change them. I propose to get rid of them.”

Another source of disfavor for proprietary institutions stemmed from Flexner’s attributing the “over-production” of medical practitioners to “a very large number of commercial schools, sustained in many cases by advertising methods.”

Flexner’s disdain for schools that “reek with commercialism” echoed the sentiment of another participant involved in producing the report — the AMA, the predominant professional organization for physicians of the time. Several conditions in medicine after the turn of the century shaped AMA interests. In this era, doctors were not highly regarded, and their incomes were, at best, on par with that of mechanics. Public confidence in, and respect for, the institution of medicine waned in the face of fierce public confidences in, and respect for, the institution with that of mechanics. Public confidence in, and respect for, the institution of medicine waned in the face of fierce
discussed at length” occurred in New York in December 1908:

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The first meeting during which the “co-operation with and the projected report of the Carnegie Foundation regarding medical colleges…was discussed at length” occurred in New York in December 1908:

[A]n informal conference was held with President Pritchett and Mr. Abraham Flexner of the Carnegie Foundation. Mr. Pritchett had already expressed, by correspondence, the willingness of the Foundation to cooperate with the Council in investigating medical schools.

The collaborative nature of their joint investigation, however, was to be kept concealed to persuade public opinion:

[Pritchett] agreed with the opinion previously expressed by the members of the Council that while the foundation would be guided very largely by the Council’s investigations, to avoid the usual claims of

impartiality no more mention should be made in the report of the Council than any other source of information. The report would therefore be, and have the weight of an independent report of a disinterested body, which would then be published far and wide. It would do much to develop public opinion.

In the course of their collaboration, Pritchett developed a close rapport with Arthur Dean Bevan, chairman of the council. In November 1909, Pritchett wrote Bevan that the foundation was simply continuing a survey begun by the council in 1906:

As evidence of the extent to which the foundation and the AMA had been “hand in glove,” Flexner performed many inspections with the council secretary. Furthermore, Flexner often sought advice from the editor of the Journal of the American Medical Association, who had previously decried the “absurdly crowded conditions” plaguing the medical field.

After the report was published, the Journal agreed with everything Flexner wrote. Without reporting any prior collaboration between the AMA and the foundation, a Journal editorial commented on the presumed impartiality of the research:

This report is evidently the result of an enormous amount of painstaking work and is worthy of the most careful study. Coming from an
agency outside and independent of the medical profession, it is sure to have a most profound influence on medical education in general, and claims of partiality or prejudice cannot be made against it.5, p. 120

True to the interests of organized medicine, Flexner disparaged dissenting sects and called for reducing the number of medical practitioners. Eclectics, for example, were deemed “drug mad,”2, p. 163 and chiropractors were denigrated as “unconscionable quacks,” whose “pretense” and “misrepresentation” were “of the most unqualifiedly mercenary character.”2, p. 158 Moreover, far too many physicians were practicing due to “an enormous over-production”2, p. x of practitioners. In his introduction to the report, Pritchett complained about the “vast army”2, p. x of physicians churned out by “the over-multiplication of medical schools,”2, p. xvi and argued for reducing the supply of doctors so that existing physicians could “make a competent livelihood.”2, p. xiv Professional birth control would limit competition and raise physician pay.

Flexner likewise complained in the report of how “so many low-grade doctors huddle that there is no decent living for those already there and no tempting prospect for anybody better.”2, p. 42 Although he conceded that competition can, in some situations, be “stimulating,” in others it “may also be demoralizing.”2, p. 144 Preferring a well-paid physician elite to an underpaid “horde,”2, p. 155 Flexner argued that society should train better physicians by training fewer. Dealing with the “far-reaching economic problem” of low physician pay, Flexner sought to raise the barriers to becoming a doctor in order to raise the incomes of the remaining practitioners. He ambitiously called for reducing the number of medical schools from 155 to 31, cutting the annual output of physicians from 4,442 to 2,000.2

The legacy of the report

Flexner’s investigation had an important and enduring impact on North American medicine. In the wake of the report, the face of the medical profession became more homogeneous with respect to gender and race; allopaths, specialists, and full-time faculty were more respected; and the industry was more regulated. As Pritchett asserted, the “striking and significant facts” brought out in the report “are of enormous consequences not only to the medical practitioner, but to every citizen of the United States and Canada.”2, p. x

Of all the changes pursuant to the publication of the report, the impact on the composition of the medical labor force has been one of the most significant. Flexner argued that there was no need for medical schools specifically devoted to women and recommended that all three such schools be closed. He explained that “it is clear that [women] show a decreasing inclination”2, p. 179 to enter the profession because “any strong demand for women physicians or any strong ungratified desire on the part of women to enter the profession may be ‘lacking’.2, p. 179

Flexner also recommended that “the seven medical schools for negroes”2, p. 180 be reduced to two; he considered five to be “ineffectual”2, p. 181 and “in no position to make any contribution of value.”2, p. 180 Flexner argued that the two schools should remain operational because there would always be a need for African American physicians, even though the “medical care of the negro race will never be wholly left to negro physicians,”2, p. 180 African Americans, being “a potential source of infection and contagion,” needed their own physicians.2, p. 180 Flexner further recommended that “hygiene rather than surgery” be “strongly accentuated” in these schools.2, p. 180 The report, with its patronizing tone toward African American institutions and physicians, set the pattern for admitting minorities into medical schools that persisted for several decades; between 1920 and 1964, less than 3 percent of students entering American medical schools were African American.14

Another legacy of the report was the polarization within the medical profession between the specialist and generalist, and the tendency to acclaim the achievements and status of the specialist vis à vis those of the generalist. In failing to understand that there was an art to medicine as well as a science, Flexner considered country doctors inferior to sophisticated physicians trained in the Hopkins tradition. To promote “sophisticated” training, Flexner recommended a four-year curriculum in which laboratory sciences would consume the first two years. He noted that physicians must be scientists first and stressed that teachers should perform research on a continuing basis so that they could inspire their students. Even during the last two clinical years, the student was still to be a scientist, and the hospital a laboratory for scientific observation.

Flexner’s favoritism for the specialist was apparent in his recommendation for a full-time faculty actively involved in research. Before the report, however, medical schools tended to choose faculty from local physicians with good reputations who sought to earn additional income through teaching fees. Those who had a student following, because of their clinical competence, could earn additional consulting money from former students who would rely on their professors’ expertise for difficult cases. This approach to faculty appointments promoted clinical excellence, conscientious community involvement, and capable teaching.

Preferring professors who were wholly committed to teaching and research, Flexner may have been influenced by two laboratory scientists, his brother and William Henry Welch, who became the first dean of the Johns Hopkins Medical School. The scientists’ salaries were low, especially in comparison to the generous incomes of the clinical faculty from private practices and lucrative consulting.13 The disparity generated jealousy and resentment from some of the scientists toward their more affluent clinical counterparts.
Flexner favored the specialist in accord with the interests of both the AMA and the GEB. The AMA, representing the medical school scientist faculty and the practitioner elite, advocated raising the standards of medical education to a level that justified the investments of its members in their own professional education. In the same light, the vision of the Rockefeller-funded GEB was for medicine to be generously endowed and for “qualified men [to] give themselves to uninterrupted study and investigation, on ample salary, entirely independent of practice.”

The GEB implemented many of Flexner’s recommendations through establishing and encouraging research institutes wherein teaching was incidental to scientific investigation and that ignored the needs of ordinary practitioners. Under Rockefeller influence, the primary purpose of medical education as training doctors for community practice took a backseat to research.

Yet another legacy of the report was the impulse to resort to authoritarian tactics in regulating the medical profession. In his introduction to the report, Pritchett asserted that “as nations advance in civilization, they will be driven to throw around the admission to these great professions [of law and medicine] such safeguards as will limit the number of those who enter them to some reasonable estimate of the number who are actually needed.”

Continuing in this vein, Flexner argued for the “restriction put upon the liberty, so-called, of a dozen doctors,” who were mere “social instruments,” to increase “the effective liberty of all other citizens.”

Flexner advocated the “reorganization” of medical education “along rational lines,” calling upon the use of “legislation,” the “public prosecutor,” “statute,” “law,” and “control in the social interest” to make “certain regulations,” “forbid,” “require,” “enforce,” and “exterminate.” He explained that the “community through such regulation undertakes to abridge the freedom of particular individuals” and impair “individualism” in order to accomplish greater ends.

According to Flexner, the “right of the state” to regulate “in its own interest” the medical profession “can assuredly not be gained.” Such collectivist tendencies advocating “the tyranny of the masses over the individual” alarmed the Medical Notes and Queries, which dubbed Flexner Socialism’s “new evangelist” for his “assuming the right to manage the profession, to overthrow its traditions and to rebuild it on Socialist lines.”

**Conclusion**

Abraham Flexner’s rushed and biased diagnosis of the status of North American medical education in the early twentieth century led to a treatment that may have been bad medicine. Its adverse effects have been significant and enduring. In the aftermath of the Flexner report, the face of the medical profession became increasingly homogeneous with respect to gender and race, its practitioners fewer but richer, its creed allopathic and interventionist, its schools dependent on grants from foundations and governments, and its reach into communities stunted. Research became ensnared, specialists the ne plus ultra among physicians, incomes inflated, and the whole field regressed according to what bureaucrats and insiders demanded, rather than directed by what patients desired.

This legacy rests on a foundation of possible fraud. The diagnosis was rendered and the treatment prescribed by a man who was not a physician. Nor was he a disinterested examiner unconnected to partial parties; Flexner wrote the report in collusion with the medical trust. His evaluation was cursory, and his rash recommendations supported the interests of organized medicine and the foundations under whose auspices he worked. Flexner claimed to promote the scientific method in medical education, yet failed to adhere to the principle of careful observation in his own research. Indeed, as Flexner himself maintained, the “tendency to build a system out of a few partially apprehended facts, deductive inference filling in the rest, has not...been limited to medicine.” Such a tendency also pervades Flexner’s critique of medical education.

**References**


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