Flexner and World War I, 1910-1918

The Flexner Report

In the fiercely independent, free-thinking, always pioneering United States, medical education in the late 19th and early 20th century was generally a shambles. No standardization, little regulation, widely varying quality, openly fraudulent proprietary schools—all of these were great problems. While some medical historians note that reform of medical education gradually began in the 1890's, it has been a traditionally held belief that widespread reform, or even the widespread realization that reform was needed, didn’t really commence until the publication of the Flexner Report in 1910.

Abraham Flexner was commissioned in 1909 by the Carnegie Foundation for the Advancement of Teaching to research and publish an analysis of medical education in the United States and Canada. To do this, he visited each of the existing 155 medical schools. He then wrote a proposed model for U.S. medical education, along with a frank critique of the strengths and weaknesses of each school.

Flexner hoped for a reduction of the 155 medical schools to 31, producing fewer M.D.'s, but ones with greatly increased skills, knowledge and competence. His vision of the ideal medical school included full-time faculty; a true affiliation with an established university; close association with and full access to a teaching hospital (preferably school-owned); increased emphasis on laboratory work and research, to be accompanied by state-of-the-art equipment and facilities; and more rigorous, standardized entry requirements.

When Flexner compared his model with the actual condition of the various schools, marked differences appeared. The published result of his survey was a brutally honest, often scathing report, pointing out inadequacies and failings bluntly, and by school name. The only school approaching his ideal was Johns Hopkins. After that, schools were in varying groups of descending quality. His most harsh criticism was reserved for strictly proprietary (for profit) schools, since many were little better than diploma mills.

Flexner visited Creighton in April 1909 and considering the overall caustic nature of his report concerning all schools, the Creighton University College of Medicine did not fare badly. Flexner considered the Creighton Medical College an integral part of Creighton University and noted that the labs and equipment for chemistry, pathology, histology and bacteriology were adequate, that the dispensary had several "large and well arranged rooms" and that attendance there was fair. A small museum and small library were mentioned. He further pointed out that the school had access to several hospitals, and had one full-time professor, in Chemistry.

There were criticisms, of course. There was discussion of Creighton’s entry policies, saying that if prospective students were deficient, they were sent to the appropriate department at Creighton University, then sent back with a certificate (presumably of questionable merit). Creighton procured animals for labs only as needed, rather than keeping them on hand. It had a cadaver "dry as tanned leather."
and a defective school skeleton (mentioned several times). The sale of quiz compendiums (a kind of Cliff's Notes for medicine) was faulted, as was the fact that students witnessed operations in the hospital, as opposed to assisting. The hospital itself was not within walking distance of the school, causing students to "have to transfer specimens of urine, feces, and gastric contents on the street cars across town," since they were not permitted use of the clinical laboratories at St. Joseph Hospital.

Flexner was fair; some of the conditions he saw were truly outrageous, and a few genuinely fraudulent. For example, the dissecting room at Kansas Medical College, Topeka, was dubbed as a chicken yard. The College of Physicians and Surgeons in Los Angeles had a large, prominent sign, "Library" on the nicely made door - of a closet. The Eclectic School at Lincoln, Nebraska, loosely affiliated with Cotner University, supposedly gave clinical instruction at Lincoln, laboratory instruction at Cotner. Yet when asked where the course or that was conducted, the answer was often, "Not here - at the other campus." In reality, the course was conducted at neither. Flexner called this "prestidigitation" and said he saw a lot of it in his visitations.

Flexner's conclusion in specific reference to Nebraska schools and in keeping with his recommendation to drastically reduce the number of medical schools, was a suggestion to merge the Creighton and University of Nebraska Medical Colleges:

Creighton and the University of Nebraska would, if joined, form an institution of moderate size, capable of considerable expansion before reaching the limit of efficiency.

Creighton Responds

Despite Abraham Flexner's views, Creighton and the Nebraska system were not about to merge. What were Creighton's reactions to the Flexner Report? Did Creighton change following Flexner?

Whether or not entirely due to the Flexner Report, changes were evident at the Creighton University College of Medicine in the immediate years that followed. Beginning with 1911, there was a firming up of all aspects of judgment standards, from entrance prerequisites to course requirements to graduation standards. In 1911, 70% was set as the minimum passing grade for all first and second year exams, 80% for all third and fourth year exams. Ninety percent attendance was required of all students. In 1913, the exam standard was changed to a 75% minimum score for passage of exams by all.

Beginning in January 1914 one year (of at least 32 weeks) of college was made the mandatory educational level for all aspiring entrants. This must have included one year's college work in biology, chemistry, physics and either French or German. The Creighton Courier of November 1, 1914, reports:

Though the entrance requirements were increased last September to one year college in addition to four years of high school, the enrollment is satisfactory. The Freshman class is not as large as heretofore, but the pre-medical class, now in training, gives promise that next year the entering class will be as large if not larger than before the change - an indication of the high regard in which the school is held.
The 1918-1919 Bulletin reported further increases in entry-level requirements:

Beginning January 1, 1918, the minimum requirement for admission is, in addition to a four-year course in an academic High School, two years of college work of at least sixty semester hours, of which at least twelve semester hours shall have been devoted to Chemistry, eight to Physics, and eight to Biology. Admission is governed by the Council on Medical Education of the American Medical Association.7

The Bulletin also strengthens the official academic stance. As of the 1918 school term, "Incompetent or idle students will not be permitted to remain in attendance," and no entrance conditions will be permitted. Henceforth, all stated entrance requirements had to be met at the time of admission, a student could repeat a year one time only, and no conditions of the first two years could be carried over to be finished in the third year or later.

Added in 1919 was more specificity as to required courses in the high school and two-year college education. Also added was a senior thesis requirement, mandatory for graduation, to be done on a medical or surgical topic, with an annual prize of $50 for the best one submitted.

Other changes at Creighton can be discerned from period literature. The Creighton Chronicle of February 20, 1910, noted that "a complete collection of specimens for the Osteological Department of Anatomy has just been imported from Germany." Concerned Flexner?) In 1912 the entire Department of Anatomy was reorganized under the direction of Hugo Wightman, the Department Head.6 Also reported in 1912 was a complete remodeling of the Chemistry labs, including new lab equipment and the establishment of a new lab for Operative Surgery.13

In line with one of Flexner’s chief criticisms of medical schools, the lack of full-time faculty, Creighton began to emphasize the qualifications of those they employed, and to imply that those not paid as full-time were, for all intents and purposes, full-time. Of the instructors of the first and second year courses, "many have been successful practitioners, who now devote all their time to preparation and teaching in their departments." The Annual Announcement states:

Some of the important clinical chairs are on a university basis, therefore it is the duty of the instructor in charge to devote from 3 to 5 hours each day to the preparation and detailed study of the clinical cases; to look up the recent literature; to do the necessary laboratory work. The clinical instructor will give at least one hour each day to bedside instruction to small groups of senior students. The old fashioned amphitheatre clinic, held by the busy practitioner who cannot spare the time to thoroughly study his cases on a scientific basis, but merely presents the rudiments of the patient’s
illness, is fast becoming obsolete in the modern medical college". Most of the instructors consider their professional college work the principal duty. 12

Further indication of reform and of increased academic awareness includes the organization in 1913 of a medical research society for juniors and seniors under the direction of the new dean, A.L. Muirhead. In 1916 under another new dean, J. Ross Clemens, there is reported a thorough reorganization of the whole College of Medicine. New equipment, curriculum changes, new faculty members from Princeton and Columbia, extended facilities for the clinic, new and remodelled lab facilities and a new system of clinical clerkships for seniors - all were changes implemented by Dean Clemens. 13

The development of a library also came about during this period. In 1913 the room used as a library was moved from the ground floor to the north end of the second floor in the main building. Facilitating the development of the medical library was the donation in 1913 of $5000 by a 1903 medical graduate, Michael J. Scott, in commemoration of the tenth anniversary of his graduation. Of this, $1,000 was to be used for the immediate purchase of books, to be designated the Dr. M. J. Scott Medical Library. An additional $4,000 was to be invested and the interest used for maintenance costs. 14 In 1916 a Committee on the Library was first listed in the Annual Announcement, and in 1917 a new library was opened on the top floor of the medical lab building, carrying at least 80 scientific journals. In 1918 the first medical librarian was appointed. She was Miss Lillian “Pauline” Cranny, later important in the overall administration of the medical school, first as Registrar, then Secretary to the Dean. The Cranny name was to become familiar to generations of medical students. Besides Pauline, Melecia Cranny was the Medical Librarian from 1932 to 1951, and her niece, Phyllis Cranny, was the Assistant Medical Librarian from 1945-1959.

The clinical aspect of medical education at Creighton was also making strides. As of 1913, Omaha General Hospital was no longer listed as being available for Creighton’s use, but this was more than compensated for by the addition of City Emergency Hospital for Infectious Diseases, made available for small sections of students in 1916. St. Catherine’s Hospital and the Salvation Army Rescue Home both were mentioned as being available for student use for the first time in 1917.

More significant was the establishment in 1916 of a clinical clerkship system at St. Joseph’s Hospital for senior students. Included as a portion of the general college reorganization instituted by the new Dean, J. Ross Clemens, it was an attempt to have students interact with patients earlier and more responsibly.
The new clinical clerks would be assigned specific patients, take their histories, perform their physical exams and do all clinical lab work required. They would become, for the time being, members of the regular staff of the hospital. Each student serves as a clinical clerk for the period of 12 weeks and is required, during his period of service, to fulfill all the duties exacted of a Junior Internes. 15 Yet these new staff members had to adhere to a list of rules. They ranked below the grade of Junior Internes and were under the direct authority of the Resident Physician; they could perform only those specific procedures assigned, and were not "of their own motion and initiative, to order, prescribe or perform any therapeutic or diagnostic procedures whatsoever." 16 They could not take meals or remain overnight at the hospital, they had to transport patients to the amphitheatre for demonstration by visiting physicians, and they had to provide themselves with "proper hospital uniforms, and must have the leather heels of his [their] shoes replaced by rubber heels." 17 The student had to sign a statement signifying he had read and agreed to all of these rules. If he infringed upon these rules, he could be dismissed from the hospital, necessitating a repeat of the entire senior year. Lastly, "ignorance of these rules will not be received as an excuse in any case of their violation." 18 The list seems to imply misgivings about letting medical students work in the hospital.

The dispensary clinic at the school itself was likewise giving students more responsibility. The out-patient department, first mentioned in the 1912 Announcement, was for patients who could not leave home. Senior students made the home calls, only assisted by a clinical instructor "if the case is of a serious or specially interesting nature." 19 A special section of this department, Obstetrical Out-Service, assigned a pair of students to follow a pregnancy case through home delivery and convalescence, preferably (but not always) assisted by an instructor. Each student was required to be involved in not less than six OB cases.

The Superintendent of the Clinic in 1917, Dr. George Pratt, described the work accomplished by the clinic in that year, providing clinical team work to those who otherwise could not afford a battery of specialists:

"So long as the specialists work independently in their respective offices their co-operation is far too expensive for any but the well-to-do to afford. I have in mind a lady who came to the Dispensary a few days ago, where the fees for the work done at regular prices would have run well over thirty dollars." 20
It also, in approximating private practice as closely as possible, gave students valuable practical experience. Dr. Pratt noted that during the year 1916, there were 15,450 visits made by patients to the dispensary. An indication that the Clinic made every attempt to accommodate the public and thereby increase traffic flow, is found in a 1917 announcement that special clinic hours were to be instituted for school-age children. Clinics were to be held from 4:00-6:00 p.m., 6 days a week. Specialists were to be in attendance.24

What of Creighton College of Medicine's primary clinical facility, St. Joseph's Hospital? What was happening there during this period? Building and expansion were continuing, with a 1914, two-story addition to the rear of the clinical amphitheatre. This was a fire-proof clinical laboratory building, specifically designed for student use. The Annual Announcement states:

"Here the student obtains necessary practice in technique and in interpretation of laboratory findings as bearing on individual cases. Opportunity is also provided for doing the laboratory work incident to the case to which the student has been assigned in the hospital. The laboratory is fully equipped for urine, faeces, blood, bacteriological, serum, vaccine, frozen and paraffin sections, and Abderhalden work.22"

There was also a completely outfitted X-Ray Laboratory in the new addition.

It was noted that one of Flexner's specific criticisms of Creighton College of Medicine was the lack of appropriate clinical laboratories, necessitating cross-town bus trips transporting bodily fluids. It took Creighton and St. Joseph's a few years, but now Creighton students had suitable clinical laboratory facilities available at the hospital.

Other advances at St. Joseph's included the extension of clinics from 5 half days to 6 half days, in 1915. Also, the Obstetrical Department of St. Joseph's Hospital was begun in 1918, providing still further clinical experience for Creighton students. Although the new OB Department had only 14 "guests" during its first year, it later expanded to become the largest in the city.23

In the wake of the Flexner Report, then, it would seem that Creighton was advancing nicely, making...
needed improvements, expanding and improving the quality of medical education. Statistics kept by the American Medical Association of the results of State Board licensure examinations of medical graduates also indicate Creighton’s competence. Of the 1912 graduates of Creighton, 44 were examined during that year in all states, and only 2 failed, a failure rate of 4.5%. This was a lower rate than 29 of the 43 large schools listed, making Creighton 11th out of the 43 schools listed from among the 110 schools in the country at the time. With reference to the graduates of 1908-1912 inclusive who were examined during 1912, of 51 examined, only 4 failed, a rate of 7.8%, a lower rate than 26 of the 43 schools compared. Finally, of graduates examined in states other than Nebraska, in “the most severe test for medical graduates, namely examination in a foreign state,”24 not one failed.

The statistics for several years following were proudly reported as being equally impressive.25 Also noted was the fact that the Regents of the University of the State of New York, another examining and rating body of the time, fully recognized Creighton beginning with the year 1914. This Board only recognized 66 of the 110 U.S. medical schools, fewer than any state board, and fewer than the American Medical Association’s Council on Medical Education.26

Early Accreditation Visits

Yet Creighton University College of Medicine was having trouble measuring up in other areas. As early as 1907, the American Medical Association Council on Medical Education and the Association of American Medical Colleges (AAMC) began inspecting schools and rating them based on these observations, and measured against standards established by them. This was in direct agreement with Flexner’s advocacy of objective, identical standards for all medical schools. A 1913 report of an inspection of the Creighton College of Medicine by a visiting team from these two organizations indicates many areas of dissatisfaction with Creighton, leading to a less than acceptable school rating. According to the report,27 record keeping in many areas, from entrance credentials to grades, was inadequate. The dean needed to put aside all other duties, and concentrate on administration. (The report noted several times the dean’s lack of an office, or even a desk, at the school.) There were not enough labs or lab equipment; the clinical service at St. Joseph’s Hospital needed to be enlarged, with more bedside teaching; students needed to be given more responsible clinical experience there; and the Dispensary needed more volume. A clinical lab and more OB exposure were also needed. Emphasis was placed on the need for more full-time faculty, especially in the laboratory sciences, and more experimental research work was encouraged. There was the strong recommendation for increased tuition. Although the Dispensary was commended for its physical layout, and the library was said to be a good nucleus around which to build, the team also noted: “We were not impressed with the books being chained to the tables. It is suggestive of a depravity on the part of the student that is not elevating.”28 The report concludes:

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Chapter V

"Creighton University College of Medicine Physical Laboratory, 1912."
You have a commodious college building with ample room for laboratories, class rooms and out-door dispensary. With proper development of these by way of equipment and teachers who are imbued with the responsibilities of modern education, there is no good reason why your college should not take rank among the acceptable schools.\(^29\)

A.L. Muirhead, soon to be dean, wrote an article in 1912 in which he expressed the frustrations felt by Creighton and other schools. He called rating organizations an “unnecessary interference” and said that

So many suggestions, recommendations and imperative requests for changes in time, methods, matter and equipment in medical schools are being fired at medical faculties from an increasing number of official and semi official bodies that it is no wonder medical institutions are at times reduced to the condition of the old man in the fable, who tried to please everybody, but pleased nobody.\(^30\)

He voiced resentment at pre-set standards, which he felt robbed the faculty of judgment prerogatives. He felt students were being treated as children because of too many rigid, structured regulations and requirements, and advocated much more student choice as to curriculum, based on individual abilities. He also voiced a “damned if you do, damned of you don’t” argument in regard to the much maligned quiz compends. In his particular subject, Pharmacology and Materia Medica, a great deal of memorization and cramming was necessary to pass the State Board exams in these areas. If he limited teaching in these fields, as recommended by the American Medical Association’s Council on Medical Education, students would fail the Boards, and the standing of the school would drop proportionate to the number of failures. However, if students were taught the necessary material in the most efficient manner, the school was criticized as being a quiz compend school, whose only goal was the passage of exams. “Could not tell a tambour from a test tube or a kymograph from a kite.”\(^31\)

In 1915 the Association of American Medical Colleges again visited Creighton, and again Creighton had problems, only rating a “B.” ("A+" meant acceptable, "A" meant also acceptable, "B" was needing general improvements to be made acceptable, and "C" was totally unac-
ceptable.) Thus, "in all categories mentioned, including entrance requirements, teachers, library, dispensary, hospital facilities, catalogue and finances, Creighton needed to improve."32

In light of the objections raised by the evaluation teams, the improvements made by Creighton, described previously, can be seen to be major efforts to conform to the newly established guidelines. The 1916 reorganization, including new and remodelled labs, new lab equipment, the hiring of a few more full-time faculty (although not many), the establishment of clinical clerkships, the 1914 clinical lab addition at St. Joseph's, extended Dispensary hours, a new library, more mandatory clinical OB experience, and the establishment of an Obstetrical service at St. Joseph's in 1918 were all aimed at achieving that Class "A" rating.

Also as recommended by the ratings bodies, tuition was increased at the Creighton College of Medicine. In 1913, tuition and fees jumped to $135 per year, including, for the first time, a $5 athletic fee. By 1918, the figure stood at $170, including the mandatory athletic fees. The next year, tuition and fees amounted to $170 again, this time exclusive of any required athletic fee. The adoption, on and off, of an athletic fee reflects the changing circumstances of the Creighton main campus, where a new gymnasium was erected and ready for use in 1917. Medical students were allowed to make full use of this new gym, for hand-ball, squash, bowling, wrestling, boxing, billiards, swimming and basketball. They also could obtain a free physical exam there, be advised by the gymnasium personnel concerning a personal exercise regimen, and could try out for team sports.

All of Creighton’s reform efforts paid off. By 1917, things had turned around, and the Creighton University College of Medicine was given an "A" rating. Dean Cutter of the University of Nebraska College of Medicine wrote to Creighton Medical Dean Clemens:

It is with great pleasure that I offer on behalf of the University of Nebraska our heartiest congratulations on the Class A rating for the Creighton Medical College.33

The World Beckons

There is certainly evidence that Creighton Medical College was becoming more cosmopolitan in outlook. Its graduates and faculty were extending themselves farther, were getting to know the world, and the world, in turn, was beginning to recognize the name Creighton in terms of medicine. As early as 1910, we begin to see multiple references in campus publications that a certain professor or graduate was studying abroad, primarily in Vienna or Germany. One of Creighton’s leading professors of Medicine, A.D. Dunn, felt the need to write an article in The Creighton Chronicle in 1910 advising those in the Creighton sphere considering medical study abroad.34

Dr. D.C. Bryant, Dean, made an extensive trip abroad himself, including a stay in the Philippine Islands. He reported visiting with, or hearing about, the work of five Creighton men in the Philippines, halfway around the world, in 1910.35
A report of 1915 indicates that Creighton was able, at that time, to offer more internships to its graduates than they could fill. Furthermore, these appointments were to far-flung hospitals. The listing of appointments for the same year, 1915, showed intern appointments to 16 other hospital locations besides Omaha. These included Denver, Portland, Pittsburgh, San Francisco, Salt Lake City, Butte, (Montana), Tacoma (Washington), St. Paul and Minneapolis. In fact, the year 1915 saw 22% of all Creighton medical students originating from outside Nebraska and Iowa. Perhaps it is not surprising, then, that they would be willing to locate elsewhere for advanced training following graduation.

One other item of note along these lines is that as of April 1918, the Creighton College of Medicine became one of only six U.S. medical schools whose graduates were recognized by the Royal College of Physicians and Surgeons of England. This meant that upon presentation of appropriate credentials, Creighton graduates could be examined and certified in Medicine, Surgery and Midwifery in England, on the same basis as a graduate of a British medical school. The 1918 Announcement noted that this may be an important consideration if graduates were contemplating practice abroad at the conclusion of the war.

The Creighton unit of the Student Army Training Corps, World War I. Taken 1918.

The War and the "Flu"

Creighton felt the effects of U.S. entry into the war, April 6, 1917, almost immediately. Father Rigge, famous Creighton scientist and faithful chronicler, noted that within the first week of World War I, five of the ten senior Creighton medics who had sent in applications to the military were accepted as navy surgeons. Beginning with the fall of 1917, military training, in the form of the S.A.T.C. (Student Army Training Corps) was mandatory. Students wore uniforms, and were paid as military employees. Military subjects were added to the normal curriculum in Medicine. Military conditioning, marching drills and special courses in military tactics and logistics became part of the Creighton scene. The Medical College operated through the summer months of 1918 to ready the senior class for entry into the military at the earliest possible time. Military conditions intensified in September 1918 when, for all intents and purposes, the undergraduate Creighton campus became an armed camp. Barracks were set up, as all students were to live on campus. Military subjects were emphasized; to the virtual exclusion of others. Outside boarders were lodged and taught on campus, and armed sentinels patrolled the campus perimeters.
It can be presumed that since the Medical College complex was on 14th & Avenue, and thus removed from the Hilltop, the military atmosphere was not as rigid or as pronounced there. Another episode at the time, however, did affect the Medical College as well as the main campus. This was the Spanish flu epidemic which hit Omaha in October 1918. Grade and high schools city-wide were closed, and large gatherings of people were forbidden, for fear of spreading the disease. (Gatherings for Mass were also prohibited.) On October 7, Creighton College and the high school were closed. Finally on October 21, even the College of Medicine was closed, not to be reopened until November 4. Ironically, at the same time that even small gatherings of people were forbidden, the S.A.T.C. were being lodged together on cots in the gym and the dorms, in groups approaching 250 at times. Amazingly, not one Creighton student died as a result of the flu.

The same cannot be said of the War itself. Creighton students, faculty and graduates took part in the war effort in great numbers, and some did perish. According to Father Rigge’s figures, 1,321 Creighton students, faculty and alumni enlisted in the military effort. Of these, 362 were affiliated with the College of Medicine—12 faculty, 97 students and 253 alumni.42

Some Creighton medical men in active service—Major Alfred J. Brown, M.D., Chairman of Surgery in 1917; Newel Jones, M.D., Chairman of Pediatrics 1913-1923; Captain G. W. Dishong, M.D. 1907, Chairman of Psychiatry 1916-1939.
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(Understandably during the war years, the enrollment in the College of Medicine showed a decline. From 111 registered in 1916-1917, the number dropped to 64 in 1917-1918 and then showed a slight increase to 90 in 1918-1919.\textsuperscript{43} Three Creighton medical people, all graduates, died serving their country in World War I. They were Dr. Emil L. Delaney, class of 1905, who died a Major; Dr. Alex F. Lundgren, class of 1907, a Lieutenant; and Dr. John P. Rosenwald, class of 1910, a Lieutenant.

Father Rigge gave a humorous account of a false announcement of the war's end on November 7, 1918. Bells rang, people celebrated, but all prematurely. The false alarm had been perpetrated by the Omaha Daily News, who, Father Rigge says, had consulted their ouija board for the supposed news scoop.\textsuperscript{44} The Armistice ending World War I really was signed on November 11, 1918, and by all accounts, the Creighton community rejoiced at the demilitarization which occurred on December 8, 1918, accompanied by the official disbanding of the S.A.T.C. The normal course of events resumed.)
Chapter V

References


3. Flexner, p. 114. He specifically mentions the Creighton University College of Medicine on pages 22, 32, 80, 83, 85, 88, 114, 136, 118 and 151.


14. "Dr. Scott's Splendid Gift," *The Creighton Courier* May 1, 1913, p. 3.


17. Annual Announcement, 1917-1918, p. 34.


27. Report of visitation to Creighton University College of Medicine by the Association of American Medical Colleges and the Council of Education of the American Medical Association, April 1913. (Courtesy of the Creighton Archives.)


38. "Medical is Honored," *The Creighton Courier* June 1, 1918, p. 3.


42. Alumnus May 1928, p. 4.

43. Registrar enrollment figures. (Courtesy Creighton University Archives.)
