The Impact of the Flexner Report on Sectarian Medical Schools

Abstract

 Alternative medicine was a common form of medical practice in the 19th century. Yet, by the mid-20th century, homeopathic and eclectic medical schools became nearly nonexistent. Many historians point to Abraham Flexner’s report *Medical Education in the United States and Canada Bulletin Number Four*, commonly referred to as the Flexner Report, as a key reason for the decline of homeopathic and eclectic medical schools. In his report, Flexner blatantly criticizes sectarian medical philosophy and discredits nearly all homeopathic and eclectic medical school. Although numerous historians have investigated how the Flexner report initiated governmental reforms of medical education which thereby contributed to the dissolution of numerous homeopathic and eclectic medical schools, the impact of the Flexner Report on the public perception of alternative medicine has been largely neglected.

 This study examines newspaper articles published during that period and the records of alternative medical schools to provide insight into how the Flexner Report impacted public perception of alternative medicine and thus contributed to the decline in homeopathic and eclectic medical schools. This study reveals that the media widely portrayed Flexner, and thus the information in his report, as a reliable and unbiased source despite Flexner’s strongly influenced educational philosophy and his close cooperation with the AMA which favoured allopathic medical schools. As financial records of homeopathic and eclectic medical schools reveal, the public’s acceptance of Flexner’s perspective led to a decline in public funding and enrolment at these institutions, thereby leading to the closure of numerous homeopathic and eclectic medical schools. However, since many of these institutions were suffering financially prior to 1910, the impact of the Flexner Report should not be over-stressed. Therefore, taking into consideration the historical context, the Flexner Report played a key role in hastening the pre-existing decline in homeopathic and eclectic medical schools.

Article

*Introduction*

Over the past few decades, alternative medicine has made a resurgence in popularity after its drastic decline in the early 20th century[[1]](#footnote-1). Studies indicate that the sales from homeopathy, a popular alternative form of medicine, have an annual growth rate of 20% and are projected to continue to rise[[2]](#footnote-2). As alternative medicine gains popularity, many of their views such as condemning vaccination have also become increasingly widespread in society[[3]](#footnote-3). These shifts in the accepted medical views have caused significant societal consequences such as difficulty achieving herd immunity from vaccinations, resurgence of previously irradicated diseases such as measles, and greater large-scale hostility between groups with opposing medical perspectives. Examining historical factors that contributed to the decline in alternative medicine in the early 20th century such the Flexner Report and its acceptance by the public will provide insight into the modern changes in public perception of alternative medicine.

In 1910, Abraham Flexner published his famous report *Medical Education in the United States and Canada Bulletin Number Four,* commonly called the Flexner Report, which provided a survey of the health of medical schools in Canada and America. In his report, Flexner directly attacked the ideology and performance of sectarian medical schools calling these practitioners “unconscionable quacks.”[[4]](#footnote-4) Considering these criticisms and the contemporaneous decline in sectarian medical schools, historians, educators, and social commentators have historically deemed the Flexner Report as a revolutionary landmark for the advancement of scientific medical education.[[5]](#footnote-5) Examining newspapers printed during that time reveals that the vast majority of the public did, in fact, believe Flexner’s critical opinions. Although attendance at sectarian medical schools was already declining, the publicity and acceptance of the Flexner Report as an unbiased evaluation caused a reduction in funding from private donors and student tuition. Thus, the Flexner Report played a significant role in hastening the pre-existing decline of homeopathic and eclectic medical schools in America.

*Historical Context*

Although there were numerous traditions of alternative medicine including Indigenous medicine and Oriental medicine, Homeopathic and Eclectic medical traditions were two dominant forms of Western alternative medicine during the early 1900s. The Homeopathic tradition was founded by Samuel Hahnemann in 1796 and relied on the Laws of the Similar—a hypothesis where a substance that causes symptoms of a disease in a healthy person could cure similar symptoms in a diseased person[[6]](#footnote-6). The Eclectic tradition also originated in early 19th century and focused on natural herbal remedies, many of which originated from Indigenous medicine[[7]](#footnote-7). These alternative medical traditions took a wholistic approach to treating disease where the physician cared about health of the entire body. Such a medical philosophy directly contrasted with the reductionist allopathic medical tradition that primarily focused on isolating specific factors causing the disease and thus focused on pathology and laboratory research during the 20th century. Furthermore, these alternative medical traditions utilized remedies that had milder effects on the body which directly contrasted with the ineffective and gruesome practice such as bloodletting and using the toxic mercury-based calomel which allopathic medical practitioners relied upon during the 19th century[[8]](#footnote-8). As a result, alternative medical traditions gained popularity throughout the 19th century until allopathic medicine established itself on a greater scientific foundation[[9]](#footnote-9). Yet, despite their relatively recent origins, these alternative medical traditions and their schools also suffered corruption and laxity much like allopathic medical schools.

 When the Carnegie Foundation published the Flexner Report in 1910, the news about the corrupt state of all medical education immediately spread throughout America. Numerous newspaper articles publicized the shocking findings described in Flexner’s Report. On July 24, 1910, *The New York Times* published a front-page article announcing how medical schools were “factories for the making of ignorant doctors.”[[10]](#footnote-10) However, the news of the Flexner Report did not fade into the distant memories of readers; newspapers continued to publish news about Flexner and his concerns about the poor quality of medical education in America. More than two years after the publication of Flexner’s Report, numerous *New York Times* articles continued to describe Flexner’s findings regarding the low American medical standards and how medical schools were “diploma mills” and “scandals.”[[11]](#footnote-11) ,[[12]](#footnote-12) ,[[13]](#footnote-13) Although these articles primarily focus on the general medical educational standards in America, they also describe how sectarian medicine received “special privileges” and could practice “on lower terms than scientific medicine.”[[14]](#footnote-14) The continual publication of these articles reveals that Americans were aware of the Flexner Report, and thus Flexner’s critical views about sectarian medicine.

*Media’s Depiction of Flexner as an Unbiased, Reliable Source*

In addition to publicising the Flexner Report, newspapers used imagery to portray Flexner as an unbiased and authoritative intellectual. *The New York Times* displayed large, centralized portraits of Flexner in front-page articles.[[15]](#footnote-15),[[16]](#footnote-16) The prominence of these portraits compared to the text communicated Flexner’s importance and authority regarding this societal issue. Furthermore, Flexner’s professional suit, his spectacles, and his wise, analytical expression depict him as a sophisticated intellectual—much like the ideal knowledgeable and progressive physician. As research has shown, visual images significantly affect how the public perceives an individual’s competence and integrity.[[17]](#footnote-17) Thus, these depictions by the press elevated Flexner’s status and presented him as a reliable and unbiased source regarding the status of medical education. As a result, Flexner had greater influence in the public sphere.

The Flexner Report also significantly impacted the public’s opinion of alternative medicine because the public perceived it as arising from a neutral, unbiased source—the Carnegie Foundation. The American Medical Association (AMA) had previously published many other similar surveys such as Nathan P. Colwell’s study in 1906.[[18]](#footnote-18) However, the AMA’s long-standing antagonism towards medical sects likely hindered their cause.[[19]](#footnote-19) As a result, Colwell’s study did not receive similar publicity. In contrast, the Carnegie Foundation—a philanthropic organization devoted to advancing the quality of education in America—commissioned the Flexner Report and thus received the status of an unbiased source.[[20]](#footnote-20) Because of Flexner’s association with the prestigious Carnegie Foundation, the ­­­Napa Weekly Journal lauded him as an “educational expert.”[[21]](#footnote-21) However, although the Carnegie Foundation commissioned the Flexner Report, the AMA significantly influenced the outcome. The Council on Medical Education (CME), an organization created by AMA in 1904, originally convinced the Carnegie Foundation to perform Flexner’s survey.[[22]](#footnote-22) The CME then gave Flexner data on previous reports, which no doubt influenced his judging criteria and his perception of certain medical schools.[[23]](#footnote-23) Furthermore, Colwell joined Flexner on his nearly 2-year survey of medical schools while simultaneously performing a study for the AMA.[[24]](#footnote-24) As demonstrated by their nearly identical judging criteria and results, the inevitable interactions between Colwell and Flexner on this journey swayed the Flexner Report to align with AMA’s ideals.[[25]](#footnote-25) However, newspapers only focused on his affiliation with the Carnegie Foundation and did not mention AMA’s influence on Flexner’s study. As a result, the public perceived the Flexner Report as an unbiased evaluation proposed solely by the Carnegie Foundation.

Similarly, the press glossed over Flexner’s personal history, which was foundational in forming his educational philosophy and his views regarding unconventional medical practices. In 1888, Flexner graduated from the John Hopkins University with a natural science degree.[[26]](#footnote-26) Unlike most universities in America, John Hopkins University emphasized empiricism, rigorous testing, and the use of the scientific method to gain knowledge[[27]](#footnote-27). As a result of this philosophy, John Hopkins University promoted lab-based scientific research which was later implemented in their medical school founded in 1893.[[28]](#footnote-28) This educational philosophy was foundational to Flexner’s personal views about medical education. While forming criteria for the survey, Flexner studied the medical education promoted by the John Hopkins University and thus used it as a model of exemplary medical education.[[29]](#footnote-29) As a result, he advocated that clinical research was an essential component of any medical education.[[30]](#footnote-30) Since alternative medical schools did not emphasize clinical research in their medical curriculum, Flexner’s report naturally disfavored these schools. However, although Flexner’s association with the John Hopkins University was a factor that influenced the impartiality of his evaluation, newspaper articles did not mention this association and presented the public with an incomplete picture of Flexner’s biases.

*Effects Caused By the Change in Public Perception*

 The publicity and undiscerning acceptance of Flexner’s antagonistic view towards alternative medicine influenced donors, which thereby threatened the financial sustainability of these institutions. Due to Flexner’s harsh criticisms against sectarian medicine and his emphasis on clinical research, private donors began to lose confidence in the quality of education provided by homeopathic and eclectic institutions.[[31]](#footnote-31) Many of these institutions attempted to incorporate scientific research into their curriculum due to their reliance on this source of funds.[[32]](#footnote-32) However, when the research made little headway in proving their principles such as the Law of Similars, private donations ceased leaving many of these schools stranded financially.[[33]](#footnote-33) The Flexner Report likewise influenced organizations causing many philanthropic organizations such as the Carnegie Foundation and the Rockefeller Foundation to financially support biomedical research endeavours.[[34]](#footnote-34) Since alternative medicine did not align with this educational emphasis, alternative medical schools were excluded from this source of income, thereby affecting their financial sustainability. As in the case of the College of Homeopathic Medicine at Ohio State University, the loss of these donors was a significant factor in the closure of many alternative medical schools.[[35]](#footnote-35) The decline in donations to sectarian medical schools illustrates how the influence of the Flexner Report on the public opinion caused a decline in homeopathic and eclectic medical schools.

Soon after the publication of Flexner’s Report, attendance at homeopathic and eclectic medical schools declined. Since medical schools, especially those with sectarian views, heavily depended on tuition as a source of income, low attendance resulted in the closure of numerous homeopathic and eclectic medical schools.[[36]](#footnote-36) In 1912, *The New York Times* reported that the College of Homeopathic Medicine in Iowa City was closing due to low attendance.[[37]](#footnote-37) According to Flexner’s Report, this institution had 42 students in 1910.[[38]](#footnote-38) Only 2 years later, its attendance had dramatically dwindled to only 16 students with only one entering that year.[[39]](#footnote-39) The article does not directly attribute the closure to the Flexner Report. However, Flexner described in his report that the Iowa College of Homeopathic Medicine was not satisfactory and was a “well-intentioned but feeble institution that only a large outlay could convert into an acceptable and efficient school.”[[40]](#footnote-40) Considering Flexner’s harsh criticisms against individual institutions and the entire homeopathic medical philosophy, the immediate decrease in attendance indicates that the Flexner Report significantly impacted its closure. Yet, the Flexner Report did not only affect a few isolated institutions. By 1920, the number of eclectic medical schools decreased from eight to only a single institution remaining.[[41]](#footnote-41) These statistics, though not causative, indicate that the publicity of Flexner’s highly critical and tendentious report caused prospective students to disfavour homeopathic and eclectic institutions, thereby resulting in their decline.

*Pre-existing Decline of Homeopathic and Eclectic Medical Schools*

 However, we must not solely attribute the closure of numerous homeopathic and eclectic medical schools to Flexner’s Report. The financial state of alternative medical institutions was already crumbling before 1910. In 1880, homeopathic and eclectic students comprised 17% of all medical students.[[42]](#footnote-42) By 1910, this figure had decreased to a mere 6%.[[43]](#footnote-43) Furthermore, by 1909, allopathic institutions had on average 180 students which dwarfed the 78 and 48 students per homeopathic and eclectic institution, respectively.[[44]](#footnote-44) Since alternative medical schools heavily relied on tuition for their survival, the decrease in the total attendance and the students per institution created a financial strain for many of these institutions. Taking into consideration tuition and other subsidies, the total average income was $33,730 for allopathic institutions, $7,982 for homeopathic schools and $4,459 for eclectic colleges.[[45]](#footnote-45) These bleak statistics concerning the financial state of homeopathic and eclectic medical schools demonstrate that other factors were already pressuring these institutions before Flexner had published his report. Therefore, the Flexner Report and its influence on the public opinion did not cause the decline in homeopathic and eclectic medical schools but rather accelerated the pre-existing deterioration.

*Conclusion*

The Flexner Report was a significant landmark in the decline of homeopathic and eclectic medical schools. Since the Flexner report was extensively publicised and portrayed as an unbiased and reliable source, Flexner’s harsh criticisms of sectarian medicine influenced the popular perception of these schools. Donations and attendance to these sectarian medical schools dramatically diminished, resulting in the prompt closure of numerous institutions. Nevertheless, the significance of the Flexner Report in these closures must not be inflated to exaggerated proportions. Long before the publication of the Flexner Report, attendance to homeopathic and eclectic medical schools was diminishing, causing a financial strain for sectarian medical institutions. Therefore, taking this historical context into account, the public acceptance of the Flexner Report’s critiques had a significant, but not revolutionary, impact on the decline in homeopathic and eclectic schools.

Bibliography

“America is Unique for ‘Diploma Mills’.” *New York Times,* Apr. 28, 1912.

<https://www.nytimes.com/1912/04/28/archives/america-is-unique-for-diploma-mills-dr-flexner-of-the-carnegie.html?searchResultPosition=1>

“American Medical Standards Lowest.” *New York Times,* June 15, 1912.

<https://www.nytimes.com/1912/06/15/archives/american-medical-standards-lowest-dr-abraham-flexner-says-so-in-his.html?searchResultPosition=4>

Barr, Donald A. “Revolution or Evolution? Putting the Flexner Report in Context.” *Medical*

*Education* 45, no. 1 (2010): 17–22. <https://doi.org/10.1111/j.1365-2923.2010.03850.x>.

Barzansky, Barbara M., and Norman Gevitz. *Beyond Flexner: Medical Education in the Twentieth Century*.

New York: Greenwood Press, 1992.

Boomgaarden, Hajo G, Mark Boukes, and Aurora Iorgoveanu. “Image Versus Text: How Newspaper

Reports Affect Evaluations of Political Candidates.” *International Journal of Communication* 10 (2016): 2529–55. <https://ijoc.org/index.php/ijoc/article/view/4250>.

“Changes at Iowa: College of Homeopathic Medicine Practically Abolished.” *New York Times*, Mar. 12,

1912. <https://www.nytimes.com/1912/03/17/archives/changes-at-iowa-college-of-homeopathic-medicine-practically.html?searchResultPosition=1>.

Crass, Ryan L, and Frank L Romanelli. “Curricular Reform in Pharmacy Education Through the Lens of the

Flexner Report of 1910.” *American Journal of Pharmaceutical Education* 82, no. 7 (September 2018): 726–31. <https://doi.org/10.5688/ajpe6804>.

Ernst, E. "Rise in Popularity of Complementary and Alternative Medicine: Reasons and Consequences for

Vaccination." *Vaccine* 20 (2001): S90-93. doi:10.1016/s0264-410x(01)00290-0.

“Factories for the Making of Ignorant Doctors; Carnegie Foundation’s Startling Report that Incompetent

Physicians Are Manufactured by Wholesale in This Country.” *New York Times,* July 24, 1910. <https://www.nytimes.com/1910/07/24/archives/factories-for-the-making-of-ignorant-doctors-carnegie-foundations.html?searchResultPosition=1>

Fisher, P., and A. Ward. "Medicine in Europe: Complementary Medicine in Europe." *BMJ* 309, no. 6947

(July 09, 1994): 107-11. doi:10.1136/bmj.309.6947.107.

Flexner, Abraham. “Medical Education in the United States and Canada Bulletin Number Four.” *Carnegie*

*Bulletin* (1910). 1–346. <http://archive.carnegiefoundation.org/pdfs/elibrary/Carnegie_Flexner_Report.pdf>.

“How to Solve the Education Problem in America.” *New York Times*, Oct. 1, 1911.

<https://www.nytimes.com/1911/10/01/archives/how-to-solve-the-educational-problem-in-america-abraham-flexner.html?searchResultPosition=7>

Johnson, Claire, and Bart Green. “100 Years After the Flexner Report: Reflections on Its Influence on

Chiropractic Education.” *Journal of Chiropractic Education* 24, no. 2 (2010): 145–52. doi.org/10.7899/1042-5055-24.2.145.

Kirschmann Anne. “The History of American Homeopathy: From Rational Medicine to Holistic Health

Care John S. Haller Jr.” The Journal of American History 97, no. 2 (September 1, 2010): 578–79.

“MANY DOCTORS; Carnegie Foundation Expert Thinks Some Physicians Poorly Trained.” *Napa Weekly*

*Journal* (Napa, CA)*,* June 10, 1910. <https://cdnc.ucr.edu/?a=d&d=NWJ19100610.2.38&srpos=2&e=-------en--20--1--txt-txIN-Flexner+Report-------1>

Markel, Howard. “Abraham Flexner and His Remarkable Report on Medical Education.” *JAMA* 303, no. 9

(March 3, 2010): 888–90. <https://doi.org/10.1001/jama.2010.225>.

“Medical Education Scandals Exist in America Only.” *New York Times,* June 16, 1912.

<https://www.nytimes.com/1912/06/16/archives/medical-education-scandals-exist-in-america-only.html?searchResultPosition=5>

Miller, Lynn E., and Richard M. Weiss. “Medical Education Reform Efforts and Failures of U.S. Medical

Schools, 1870-1930.” *Journal of the History of Medicine and Allied Sciences* 63, no. 3 (Feb. 13, 2008): 348–87. <https://doi.org/10.1093/jhmas/jrn002>.

Roberts, William H. “Orthodoxy vs. Homeopathy: Ironic Developments Following the Flexner Report at

the Ohio State University.” *Bulletin of the History of Medicine* 60, no.1 (1986), 73–87. <https://www.jstor.org/stable/44441953?read-now=1&seq=1#page_scan_tab_contents>.

Stahnisch, Frank W., and Marja Verhoef. “The Flexner Report of 1910 and Its Impact on Complementary

and Alternative Medicine and Psychiatry in North America in the 20th Century.” *Evidence-Based Complementary and Alternative Medicine* vol. 2012 (2012): 1–10. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543812/>

Winston, David. "Simple Remedies to Specific Medicines: Thomsonian, Physiomedicalist, and Eclectic

Herbalism in 19th Century America." *Journal of the American Herbalists Guild* 17, no. 2 (September 1, 2019).

1. E. Ernst, "Rise in Popularity of Complementary and Alternative Medicine: Reasons and Consequences for Vaccination." *Vaccine* 20 (2001): S90-93. doi:10.1016/s0264-410x(01)00290-0. [↑](#footnote-ref-1)
2. P. Fisher and A. Ward. "Medicine in Europe: Complementary Medicine in Europe." *BMJ* 309, no. 6947 (July 09, 1994): 107-11. doi:10.1136/bmj.309.6947.107. [↑](#footnote-ref-2)
3. Ernst, “Rise in Popularity of Complementary and Alternative Medicine: Reasons and Consequences for Vaccination."  [↑](#footnote-ref-3)
4. Abraham Flexner, “Medical Education in the United States and Canada Bulletin Number Four,” *Carnegie Bulletin*, (1910): 158. <http://archive.carnegiefoundation.org/pdfs/elibrary/Carnegie_Flexner_Report.pdf>. [↑](#footnote-ref-4)
5. Barbara M. Barzansky and Norman Gevitz, *Beyond Flexner: Medical Education in the Twentieth Century*. (New York: Greenwood Press, 1992), xi. [↑](#footnote-ref-5)
6. Ernst, "Rise in Popularity of Complementary and Alternative Medicine: Reasons and Consequences for Vaccination." [↑](#footnote-ref-6)
7. David Winston, "Simple Remedies to Specific Medicines: Thomsonian, Physiomedicalist, and Eclectic Herbalism in 19th Century America." *Journal of the American Herbalists Guild* 17, no. 2 (September 1, 2019). [↑](#footnote-ref-7)
8. Anne Kirschmann, “The History of American Homeopathy: From Rational Medicine to Holistic Health Care John S. Haller Jr.” The Journal of American History 97, no. 2 (September 1, 2010): 578–79. [↑](#footnote-ref-8)
9. Anne Kirschmann, “The History of American Homeopathy: From Rational Medicine to Holistic Health Care John S. Haller Jr.” [↑](#footnote-ref-9)
10. “Factories for the Making of Ignorant Doctors; Carnegie Foundation’s Startling Report that Incompetent Physicians Are Manufactured by Wholesale in This Country,” *New York Times,* July 24, 1910. <https://www.nytimes.com/1910/07/24/archives/factories-for-the-making-of-ignorant-doctors-carnegie-foundations.html?searchResultPosition=1> [↑](#footnote-ref-10)
11. “American Medical Standards Lowest,” *New York Times,* June 15, 1912. <https://www.nytimes.com/1912/06/15/archives/american-medical-standards-lowest-dr-abraham-flexner-says-so-in-his.html?searchResultPosition=4> [↑](#footnote-ref-11)
12. “America is Unique for ‘Diploma Mills’,” *New York Times,* Apr. 28, 1912. <https://www.nytimes.com/1912/04/28/archives/america-is-unique-for-diploma-mills-dr-flexner-of-the-carnegie.html?searchResultPosition=1> [↑](#footnote-ref-12)
13. “Medical Education Scandals Exist in America Only,” *New York Times,* June 16, 1912. <https://www.nytimes.com/1912/06/16/archives/medical-education-scandals-exist-in-america-only.html?searchResultPosition=5> [↑](#footnote-ref-13)
14. “American Medical Standards Lowest.” [↑](#footnote-ref-14)
15. “How to Solve the Education Problem in America,” *New York Times*, Oct. 1, 1911. <https://www.nytimes.com/1911/10/01/archives/how-to-solve-the-educational-problem-in-america-abraham-flexner.html?searchResultPosition=7> [↑](#footnote-ref-15)
16. “Medical Education Scandals Exist in America Only.” [↑](#footnote-ref-16)
17. Hajo G. Boomgaarden, Mark Boukes, and Aurora Iorgoveanu, “Image Versus Text: How Newspaper Reports Affect Evaluations of Political Candidates,” *International Journal of Communication* 10 (2016): 2531. https://ijoc.org/index.php/ijoc/article/view/4250. [↑](#footnote-ref-17)
18. Barr, “Revolution or Evolution,” 19. [↑](#footnote-ref-18)
19. Lynn E. Miller and Richard M. Weiss. “Medical Education Reform Efforts and Failures of U.S. Medical Schools, 1870-1930,” *Journal of the History of Medicine and Allied Sciences* 63, no. 3 (Feb. 13, 2008): 358. https://doi.org/10.1093/jhmas/jrn002. [↑](#footnote-ref-19)
20. Barr, “Revolution or Evolution,” 20. [↑](#footnote-ref-20)
21. “MANY DOCTORS; Carnegie Foundation Expert Thinks Some Physicians Poorly Trained,” *Napa Weekly Journal* (Napa, CA)*,* June 10, 1910. <https://cdnc.ucr.edu/?a=d&d=NWJ19100610.2.38&srpos=2&e=-------en--20--1--txt-txIN-Flexner+Report-------1> [↑](#footnote-ref-21)
22. Claire Johnson and Bart Green, “100 Years After the Flexner Report: Reflections on Its Influence on Chiropractic Education,” *Journal of Chiropractic Education* 24, no. 2 (2010): 146. <https://doi.org/10.7899/1042-5055-24.2.145>. [↑](#footnote-ref-22)
23. Johnson and Green, 146. [↑](#footnote-ref-23)
24. Barr, “Revolution or Evolution,” 19. [↑](#footnote-ref-24)
25. Barr, 20. [↑](#footnote-ref-25)
26. Howard Markel, “Abraham Flexner and His Remarkable Report on Medical Education,” *JAMA* 303, no. 9 (March 3, 2010): 888. https://doi.org/10.1001/jama.2010.225. [↑](#footnote-ref-26)
27. Claire Johnson and Bart Green, “100 Years After the Flexner Report,” Journal of Chiropractic Education 24, no. 2 (2010): 146. https://doi.org/10.7899/1042-5055-24.2.145. [↑](#footnote-ref-27)
28. Johnson and Green, 146. [↑](#footnote-ref-28)
29. Barr, “Revolution or Evolution,” 19. [↑](#footnote-ref-29)
30. Ryan L Crass and Frank Romanelli, “Curricular Reform in Pharmacy Education Through the Lens of the Flexner Report of 1910,” *American Journal of Pharmaceutical Education* 82, no. 7 (Sept. 2018): 730. https://doi.org/10.5688/ajpe6804. [↑](#footnote-ref-30)
31. William H. Roberts, “Orthodoxy vs. Homeopathy: Ironic Developments Following the Flexner Report at the Ohio State University,” *Bulletin of the History of Medicine* 60, no.1 (1986), 84. https://www.jstor.org/stable/44441953?read-now=1&seq=1#page\_scan\_tab\_contents. [↑](#footnote-ref-31)
32. Roberts, 84 [↑](#footnote-ref-32)
33. Roberts, 84 [↑](#footnote-ref-33)
34. Frank W. Stahnisch and Marja Verhoef, “The Flexner Report of 1910 and Its Impact on Complementary and Alternative Medicine and Psychiatry in North America in the 20th Century,” *Evidence-Based Complementary and Alternative Medicine* vol. 2012 (2012): 2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543812/> [↑](#footnote-ref-34)
35. Roberts, “Orthodoxy vs. Homeopathy”, 84. [↑](#footnote-ref-35)
36. Barzansky and Gevitz, *Beyond Flexner: Medical Education in the Twentieth Century*. 88. [↑](#footnote-ref-36)
37. “Changes at Iowa: College of Homeopathic Medicine Practically Abolished,” *New York Times*, Mar. 12, 1912. <https://www.nytimes.com/1912/03/17/archives/changes-at-iowa-college-of-homeopathic-medicine-practically.html?searchResultPosition=1>. [↑](#footnote-ref-37)
38. Flexner, “Medical Education in the United States and Canada Bulletin Number Four,”224. [↑](#footnote-ref-38)
39. “Changes at Iowa” [↑](#footnote-ref-39)
40. Abraham Flexner, “Medical Education in the United States and Canada Bulletin Number Four,” 225. [↑](#footnote-ref-40)
41. Barzansky and Gevitz, *Beyond Flexner: Medical Education in the Twentieth Century*. 92. [↑](#footnote-ref-41)
42. *Beyond Flexner*, 91. [↑](#footnote-ref-42)
43. *Beyond Flexner*, 91. [↑](#footnote-ref-43)
44. *Beyond Flexner*, 91. [↑](#footnote-ref-44)
45. *Beyond Flexner*, 91. [↑](#footnote-ref-45)