

# The Rise and Fall of Authoritarianism in the Teaching of Medicine

Richard M. Hays, MD

Professor of Medicine Emeritus, Albert Einstein College of Medicine, Bronx, NY.

The spring of 1903 arrived in Baltimore on schedule, and the trees and flowers on the campus of the Johns College of Medicine were already in bloom. But the medical students scurrying to the amphitheater hardly noticed. Sir William Osler was waiting with a patient, and heaven forbid they should be late.

Sir William was a remarkable figure in the history of American medical education (Geyman, 1983). Born and educated in Canada, he did his graduate work in England, Scotland, Germany, and Australia. Following his arrival at Johns Hopkins, he reorganized the curriculum, combining the English system and the German internship and residency systems. There were two years of clinical clerkships, with small-group teaching at the bedside. Central to his teaching was his textbook: *The Principles and Practice of Medicine* (Osler, 1892). That day, he planned to discuss a section on cardiac dilatation. He had already mastered the lecture; he had written virtually every word of the book.

The students had spent the night memorizing the section, which focused on history and physical manifestations, since little was known at the time about disease mechanisms, laboratory findings, or treatment. Osler may have taken this avoidance of therapy to the extreme; indeed, Hogan (1999) wondered whether Osler had “paranoia antitherapeuticum baltimorensis.” Still, Osler remains among the immortals.

Osler eventually turned over the updating of his textbook to Henry Christian, who continued the practice of writing the entire text himself. Christian argued that “there is an advantage in presentation by a single author, who has studied the reports of others in the light of his personal knowledge and experience, and presents the various subjects with a unity of critical thought as is not possible in multiple authorship.” Authoritarianism indeed! Edition after edition appeared, with no outside contributors. *Principles and Practice* lost value, and finally ran aground.

Fortunately for American medical education, a new, multi-authored book under the editorship of Russell Cecil, *Textbook of Medicine*, appeared in 1927. Experts in their fields wrote each chapter, and disease mechanisms and therapy were in abundance. With Cecil’s work as a model, Harrison’s *Principles of Internal Medicine* (Harrison, 1950) was published. Harrison’s book and similar texts are now used throughout the world.

## STUDENTS AND RESIDENTS

With the advance of the materials of medical education, we might ask about the students themselves. Here, a paradox

appears: students at many schools continued to be subject to professorial authority, receiving rigorous and sometimes ruthless questioning and contributing few of their insights during the rituals of teaching. Dr. Sam Ziegler, Einstein Class of 2002, showed me the memoirs of his grandfather, Dr. Samuel R. Ziegler, who entered Case Western Reserve Medical School in 1936, and recalled the following experience (Ziegler & Ziegler, 1999):

I had another of those real hair-raising experiences to start off my sophomore year. One of the subjects we took was Pathology. Dr. Harold Karsner was the instructor. Dr. Karsner had the reputation of being very hard on students. I was again afraid that I was going to be the first to be called on with my name beginning with a “Z”. I prayed he would start with the “As” when we walked into the amphitheater for our first class. But what did he do? He started with the “Zs”. He called out “Ziegler!” And asked me a question that had something to do with syphilis and serology.

I finally replied, “Dr. Karsner, I don’t know.” I then stammered out some half-assed answer after a short pause during which Dr. Karsner continued to look in my direction. Dr. Karsner took another long drag on his cigarette, inhaled deeply and said “Ziegler, I don’t see how you can be so goddamn dumb.” You could have heard a pin drop in the amphitheater.

This state of affairs went on in our schools—perhaps not so colorfully—for a surprisingly long time. I, like many of my contemporaries, recall professors who were brilliant but seemed to delight in demolishing students. Students were not the only victims; interns and residents were driven to exhaustion by long hours of service and relatively little supervision. Indeed, it could be argued that when reform came, it started with the plight of the members of the house staff.

In 1957, interns and residents in New York City’s public hospitals took leave of their roles as underpaid and overworked apprentices in what has been termed one of the “last great sweatshops in America” (Duncan, 1996), and founded the Committee of Interns and Residents (CIR). In 1969 they were joined by house staffers in the private sector. In 1999 the CIR won a National Labor Relations Board decision guaranteeing residents in private teaching hospitals the right to form unions. The CIR went on to negotiate contractual limits for on-call schedules, benefit plans, and higher pay.



**Figure 1 | The learning studio at the University of Virginia School of Medicine.** This is a building designed to accommodate students gathered around conference tables, and conferring with each other on the answers to questions projected on the screens above. Permission to reprint granted by Norman Shafer (*University of Virginia Magazine*, spring 2011, pp. 36–37).

The movement gained strength following a tragic event in 1984, in which Libby Zion, an 18-year-old girl with a complex history of drug use, was admitted to a New York hospital with fever and agitation. The admitting intern was beset with other patient problems, and Libby died of cardiac arrest. Her father, Sidney Zion, a journalist, took up her cause and “set in motion a series of reforms, notably work hour limitations instituted by the ACGME that have revolutionized modern medical education” (Lerner, 2006). Dr. Bertrand Bell of Albert Einstein College of Medicine headed a panel of experts that recommended that residents could not work more than 80 hours a week or more than 24 consecutive hours.

### THE MEDICAL CURRICULUM

There has been a profound and heartening change in the approach to teaching medical students, brought about by a deeper understanding of the teaching process and a greater respect for the ability of the students to teach themselves and each other. After all, they are college graduates, and have already gone through a meaningful process of achievement and reflection. One need only survey the home pages of our medical schools to appreciate the variety and imagination that have gone into their curricular design. A list of some of the newer programs would include the following:

1. Earlier encounters during the preclinical years with patients, who share their stories with students.
2. Problem-based learning, in which students work in small groups to deal with scenarios designed to simulate real-life cases.
3. Evidence-based medicine, in which students learn to evaluate new drugs and new findings in the search for effective therapies.
4. Students-as-teachers programs, in which third- and fourth-year students take on the role of teachers for small groups of first- and second-year students. This program has been in use at Einstein, and has been favorably reviewed by both teachers and students.
5. The opportunity for students in their clinical training periods to return to basic science in the form of classroom teaching during their work on the wards. Also, at Einstein, under the guidance of Dr. Jeffrey Avner, students taking pediatrics are asked to include a “basic science paragraph” in their admission writeups. This serves not only as a reminder of their preclinical studies, but as a means of giving their preceptors and attending physicians an update on the latest in the basic science of the disease at hand: the student as professor, if you will.
6. The opportunity for students to take an extra year or two to obtain advanced degrees in areas such as public health and business administration.

7. Team training, moving the student “toward being an effective and competent team player and not an individual achiever” (Morrison, Goldfarb, & Lanken, 2010), in preparation for the growing need for cooperative approaches to healthcare management (Figure 1).
8. Finally, the Internet. Many of our current students may have come from colleges where the Internet has played a major role in their education. At least two articles in the *New York Times* have surveyed the role of the Internet in today’s college education (Parry, 2012; Lewin, 2012). At the extreme, the Internet has supplied much of the information that students receive, has influenced their choice of courses, and has even identified appropriate partners for them in the learning process. Inevitably, the Internet is now having an impact on medical education. For example, the syllabus, a printed document so carefully assembled each year as the central source of information for each course, is on the Internet in many schools, and is only part of a flood of sources of information. And, as already noted, it plays an important role in the clinical years.

Some of the programs listed above should, in theory, increase the collegiality among students and the attending physicians and house staffers responsible for their education. But it appears that this is not entirely the case. A recent nationwide poll conducted by the Association of American Medical Colleges (2012) showed that a substantial percentage of students still encountered what they regarded as mistreatment, including public humiliation and gender-based discrimination. More work must be done in this area, which may extend beyond the limits of medical education.

## CONCLUSION

This brief commentary has taken us from the early days of medical education, when a few authorities dominated the source of medical knowledge, to the computer age, when students and teachers share the information provided by the Internet. But rest assured: teachers still have much to contribute in terms of experience, perspective, and examples of kindness toward patients seeking their help. Sir William Osler would be grateful to know this.

## Conflict of Interest Disclosure

The author has completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. No conflicts were noted.

## Acknowledgments

This article builds on an article written for *MedEd@AECOM*, “Students as Teachers: An Idea Whose Time Has Come” (Hays, 2004). The author would like to thank Dr. Albert Kuperman for his leadership and encouragement during the years he served as associate dean for educational affairs. His enthusiasm and wise counsel meant everything to me in my work at Einstein. Colleagues who have contributed their thoughts to this article are Dr. Gerald Appel, Dr. Jeffrey Avner, Dr. Bertrand Bell, Dr. Michael Risley, and, finally, my wife Susan, who patiently corrected my liberties with the English language.

## Editorial Note

Dr. Richard M. Hays passed away on November 22, 2012.

## References

- Association of American Medical Colleges. (2012). Medical school graduation questionnaire. Retrieved from <https://www.aamc.org/data/gq>
- Bell, B. M. (2003). Reconsideration of the New York State laws rationalizing the supervision and the working conditions of residents. *Einstein Journal of Biology and Medicine*, 20(1), 36–40.
- Cecil, R. L. (1927). *A text-book of medicine, by American authors*. Philadelphia, PA: W. B. Saunders.
- Christian, H. A. (1942). *Principles and practice of medicine, originally written by Sir William Osler, designed for the use of practitioners and students of medicine* (14th ed.). New York, NY: Appleton-Century.
- Duncan, D. E. (1996). *Residents: The perils and promise of educating young doctors*. New York, NY: Scribner.
- Geyman, J. P. (1983). The Oslerian tradition and changing medical education: A reappraisal. *Western Journal of Medicine*, 138(6), 884–888.
- Harrison, T. R. (1950). *Principles of internal medicine* (1st ed.). New York, NY: McGraw-Hill.
- Hays, R. M. (2004). Students as teachers: An idea whose time has come. *MedEd@AECOM*, 7(1), 1–3.
- Hogan, D. B. (1999). Did Osler suffer from “paranoia antitherapeuticum baltimorensis”? A comparative content analysis of *The Principles and Practice of Medicine* and *Harrison’s Principles of Internal Medicine*, 11th edition. *Canadian Medical Association Journal*, 161(7), 842–845.
- Lerner, B.H. (2006). A case that shook medicine. *Washington Post*. November 28: Special Section.
- Lewin, T. (2012). Universities reshaping education on the Web. *New York Times*, July 17, A12.
- Morrison, G., Goldfarb, S., & Lanken, P. N. (2010). Team training of medical students in the 21st century: Would Flexner approve? *Academic Medicine*, 85(2), 254–259.
- Parry, M. (2012). Please be eAdvised. *New York Times Education Life*, July 22, 24–27.
- Osler, W. (1892). *The principles and practice of medicine, designed for the use of practitioners and students of medicine* (1st ed.). New York, NY: D. Appleton.
- Ziegler, S. R., & Ziegler, I. H. (1999). *For the soul is dead that slumbers—A memoir: The adventures of a surgeon and his family in northern New Mexico (1946–1996)*. Shreveport, LA: K’s Kopylt.