



Dr. Tinsley Randolph Harrison.
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Tinsley Randolph Harrison, MD

A legacy of medical education

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Tinsley Randolph Harrison is a grand figure in the history of medicine who touched many lives through his teaching, philosophy of education, and personal care. He is important not only for such seminal works as *Principles of Internal Medicine*, but because he reached into the future of medicine by establishing a model of internal medicine departments and medical education that remains largely intact today. Tinsley Harrison was destined to be a doctor. His heritage in the medical arts prepared him to refine his skills at several renowned institutions. After establishing himself as a dynamic teacher, thought-provoking researcher, and remarkable physician in sixteen years at Vanderbilt University, Harrison made the historic move to Winston-Salem to establish the Department of Internal Medicine at the newly relocated and revamped four-year Bowman Gray School of Medicine (BGSOM, now the Wake Forest University School of Medicine). Harrison's philosophy touched all aspects of medicine at BGSOM—medical student education, intern and resident schedules and instruction, the in- and outpatient departments, research, and more. His model of medical instruction and student integration into the workings of a hospital shaped the future of every student's experience and learning at BGSOM and ultimately set a model for medical schools everywhere.

Harrison was born in Talledega, Alabama, on March

17, 1900, to a sixth-generation physician, William Groce Harrison. Groce Harrison was more educated than most of his nineteenth-century medical contemporaries, having graduated from Auburn University and studied at the University of Nashville, with more academic instruction further afield in later years. But his early medical education consisted mostly of lectures from local practitioners and a few examinations. Medical education in the United States in the later part of the nineteenth century lacked anatomical dissections and much of the scientific instruction like laboratory work that would come to characterize twentieth-century medicine. Groce Harrison recognized his educational deficiencies, and when money and time afforded, he pursued greater knowledge in his field. In 1892, he enrolled in Baltimore Medical College, his second medical school, and there learned of a new institution in the European model being set up nearby at Johns Hopkins Hospital. At Hopkins, Groce Harrison met and befriended William Osler, the man who would come to influence American medicine and the lives and careers of Groce and his descendants.^{1p26}

Groce Harrison and William Osler kept in touch throughout the years and Groce often wrote or met with Osler to ask career advice. In one such encounter, Groce asked for counsel about taking a chief of Medicine position in Mobile, Alabama, and giving up general practice. After discussing the young Harrison family's finances, Osler instructed Groce to "get into a small subspecialty that does not involve exposure to all kinds of weather. Go abroad and get a year's training, if that is all you



Left, Dr. Harrison as full faculty member, bottom left, 1944. Right, the Bowman Gray School of Medicine cornerstone laying ceremony: Mrs. Bess Gray Plumly, sister of the late Bowman Gray, had the honor of laying the stone. From left to right: James A. Gray, Jr., Smith Hagaman (Superintendent of NCBH), Bess Gray Plumly, Governor Melville Broughton, Gordon Gray, Bowman Gray, Jr., Coy C. Carpenter. Photos courtesy Dorothy Carpenter Medical Archives of Wake Forest University.

can afford. And train those boys [Groce's sons] to be teachers of medicine."^{1p38} Though Tinsley later said that he had no knowledge of this encounter until after he took his first position as chairman of Medicine at BGSOM, Osler was obviously a great influence in the Harrison household. Of his childhood, Tinsley later noted, "I believe that learning to distinguish between the synonyms God, Jehovah, Adonai, the Lord, and Dr. Osler are my earliest memories."^{1p2}

Young Tinsley was a good student and his parents were willing teachers. From his mother he was imbued with scripture and Shakespeare; from his father, on their long walks together and home visits to the ailing, he learned about biology, astronomy, and certainly medicine. Tinsley's interests were as varied as his parents'. Groce Harrison wanted only the best education for his son, so Tinsley applied to Harvard College, planning to study law. He was accepted, but family finances precluded his attending. Therefore, upon high school graduation, he matriculated at the University of Michigan. Osler's and Groce's influences were strong, however, and after one year in Michigan Tinsley transferred to Johns Hopkins. Unfortunately for Tinsley, Osler died in 1919, the year Tinsley arrived in Baltimore.^{1p15}

Harrison's early career was successful and notable for the friendships he made. He spent his first two years after medical school graduation at Peter Bent Brigham's hospital in Boston, returning to Johns Hopkins for his third year of internal medicine training. Canby Robinson of Vanderbilt University School of Medicine persuaded Harrison to take

up the chief resident position there in 1925. His lifelong friend Alfred Blalock accompanied him. Both served as junior faculty at Vanderbilt for sixteen years, arriving and leaving on the same day.

At Vanderbilt, Harrison began his research career in earnest, focusing primarily on heart failure and the circulatory system. In 1935 he published *Failure of the Circulation* based on his own investigations. In it he promoted the idea of qualitative investigation instead of the descriptive methodology that had been the norm. After publishing a new edition in 1938, he refused to write further editions because he had no new data to contribute. Though some of his research is not well known, he also made advances in basic science, such as proving that digitalis shifted potassium out of myocardial cells. He was prolific in his sixteen years at Vanderbilt, ultimately publishing 107 papers in addition to *Failure of the Circulation*.²

The move to Bowman Gray

When Bowman Gray died in 1935, the former chairman and president of R. J. Reynolds bequeathed \$750,000 in stock to Wake Forest University to convert its two-year program to a four-year medical school in Winston-Salem. The North Carolina Baptist Hospital was to expand from its 100-bed facility to 300 beds to serve the school and to allow the program to grow to the more modern four-year model. Dean Coy C. Carpenter of the Wake Forest University School of Medicine worked tirelessly for several years to appoint faculty and



The expansion of the original medical school building in 1959 doubled the square footage of the school, adding 75,490 new square feet of space. Photo courtesy Dorothy Carpenter Medical Archives of Wake Forest University.

arrange the structure of the new school. Dr. Herbert Wells, soon to become professor and chairman of the Department of Physiology at Bowman Gray, suggested Tinsley Harrison's appointment to Dean Carpenter. Harrison seemed intrigued when Wells proffered the idea: "I am thoroughly open minded on the subject and the possible prospect of being able to start from the ground up and build a department . . . second to none."³

Harrison's credentials were as strong as his desire to create a first-rate school. Vanderbilt's Dean W. S. Leathers had no hesitation, except his unwillingness to lose Harrison, in recommending him to Dean Carpenter. In a letter to Carpenter, Leathers noted: "He is a conscientious and untiring worker and at the same time possesses a degree of brilliancy that is unusual."⁴ But Harrison was not just an ideal physician. Leathers also commented, "The students tell me that he has remarkable ability as an instructor and presents his subject enthusiastically and effectively. In other words, he possesses marked inspirational qualities as a teacher."⁴

After being tentatively offered the position of the chair of Medicine, Harrison and his wife visited Winston-Salem. Along with his desire to create a department to his own liking, the charming people the Harrisons met apparently sealed the deal. Harrison said of Dr. Wingate Johnson, one of a few physicians who had already committed to be on staff, "The impression he made on me had a great deal to do with my decision to accept the position."^{5p2} He also seemed to be swayed by the charisma of the Gray family as well as their support of the new school.

Harrison later said of the Grays, "They indicated to me they were behind the school and were going to stay behind it."^{5p3}

Dean Carpenter's many appointments strengthened the fledgling school's reputation: Dr. Camillo Antom, a world-renowned chemist, Dr. Wingate Johnson, clinical professor of Medicine and chief of the Private Diagnostic Clinic, and Dr. John Williams, a well-known researcher from Johns Hopkins, among others. Dr. Rusty Holman, chairman of the Department of Pathology at the University of North Carolina at the time, said of Harrison's acceptance of the position, "Now for the first time, I know you are going to have a first class medical school because you've got Tinsley Harrison there."^{5p3}

Once he decided to take the job, Harrison worked unremittently to create his ideal department. He and Dean Carpenter corresponded frequently in the months running up to the July 1, 1941, beginning of the school year. After one conversation on December 20, 1940, regarding plans for the school and the department for the next few years, Dean Carpenter suggested Harrison write him a letter summarizing the details. The next day, Harrison wrote a twenty-five-page letter detailing the outlines of the new department, from the minute to the grandiose. Harrison wrote,

Aim of the Department of Internal Medicine
To become the best department of internal medicine anywhere. This should be looked on as not just a praiseworthy Utopian dream but as an attainable although difficult objective. The velocity of progress toward this aim will



Dr. Harrison in 1944. Photo courtesy Dorothy Carpenter Medical Archives of Wake Forest University.

naturally vary according to conditions, but the direction of progress should not be altered under any circumstances.^{6p2}

In this letter, he described salaries, educational philosophy, physical layout of the facilities, and much more. In subsequent correspondence, Carpenter and Harrison discussed such trivia as the style of furniture and the color of the walls. Being wily and aware of the limited funds of the school, Harrison was clever in his allocation of resources:

From a psychological standpoint it is probably better to have very inadequate space for the Outpatient Department rather than moderately inadequate space because in the former instance the defect will be so apparent that there will be more opportunity to obtain special grants to remedy it.⁷

Educational ethos

As Harrison and Carpenter discussed their plans for the

new Bowman Gray School of Medicine, Harrison suggested a major change in the training of students and house staff. Traditionally, most of the teaching in medical schools was conducted by local practitioners who contracted with the schools but worked in their own clinics outside of the institutions for which they taught.⁸ Harrison believed that proper instruction of the trainees required considerable time from seasoned physicians who were faculty and primarily academic. In Nashville, he had noted the antagonism between the medical school and private practitioners; he therefore preferred that his faculty not practice outside of the school. With great tact, he refrained from objecting to members of his department practicing privately, but made it known that he would not. "The indigent patients will be my patients and I was happy with that decision and I never regretted it, because I do not think I made a single enemy for the school during the years I was there."^{5p5}

Harrison also believed in the value of bedside teaching. He said, "Teaching was all with patients, so patient care and

teaching were the same thing.”^{5p12} He did not particularly care for lectures and worked to make the bulk of medical education at BGSOM patient centered. As well as focusing on the patient, Harrison concentrated on the students and tried to inspire them: “The purpose of clinics and lectures will be primarily to stimulate thinking rather than to teach facts.”⁶ One tradition of his was to have several students over to his house about once a month for dinner. After the meal, one student would present a paper and then the group would discuss it. Harrison apparently enjoyed baiting each side so that each member would be so convinced of his own position that they all pursued the subject to seek an answer or proof. Harrison took teaching seriously, saying, “There was a close emotional bond between teacher and student, not just an intellectual bond and that’s the difference between education and instruction.”^{5p9}

Harrison followed in the footsteps of his father and William Osler by becoming a huge proponent of lifelong education for both trainees and seasoned physicians. He often ran a Monday night Clinical Pathological Conference (CPC) in which a case was presented and first the students, then the house staff, then a faculty member reviewed the case and suggested their assessment, diagnoses, and plans. Robert Morehead of Bowman Gray and a former student of Harrison’s wrote, “Almost without exception, the CPC was regarded as the most stimulating and informative educational exercise conducted at the medical center.”⁹ The conference was given on Monday nights to allow regional physicians, who sometimes came from a hundred miles away or more, to attend. The aisles were especially packed when Harrison was running the CPC. The CPC at Wake Forest continues to this day, but only once a month. Unfortunately for the audience but definitely benefiting the attending and pathologist who give the final review, the patient and his outcome are known to those final presenters, unlike in Harrison’s day, when the senior staff was as blind as the students. When Harrison was the attending presenter, he was rarely wrong but noted that he always learned something.

Besides the CPCs, patient-centered teaching, clinical demonstrations, and only the necessary amount of lectures, Harrison also wanted his students to be able to educate themselves:

Our students do not finish school with enough facility in using the library. I believe it would be a good plan if, from the very beginning, the students were given a list of articles to read, . . . The object of this would be to try to teach the students that their learning must in the long-run come from the journals rather than from textbooks.¹⁰

As students progressed from didactics to practice, Harrison pushed upperclassmen to take on more responsibility and learn the skills they would need in their new lives as doctors

in practice. He implemented significant changes to the fourth-year curriculum. In a letter to Dean Carpenter he wrote,

My notion would be that the fourth-year students should have perhaps two hours a day of lectures and clinics and the rest of the time they should act as rotating internes, having somewhat less authority than our present internes have but more authority than students ordinarily have.

. . . This as I see it, is the greatest defect in medical education at present—that the boys simply wait around during their fourth year for their internships and don’t really work the way they do the other years at medical school.¹⁰

To this day in virtually every medical school in the country, fourth-year students continue to act in this capacity as sub-interns, learning the day-to-day skills of practicing clinicians.

Harrison was a model for his students and colleagues. His work ethic was impeccable and virtually unattainable by others. He tried to instill this into his students:

You owe me only one thing; I don’t care whether you go into surgery, obstetrics or internal medicine or what, but do it *better than anybody else*. That’s a feeling I still have, that my boys must do it better than anybody else and they may have to decide what they do, but if they don’t do it better than anybody else, then I’ve fallen down as a teacher.^{5p13}

His work ethic permeated his thoughts on medicine as a profession.

I don’t believe that a 40-hour week is compatible with being a member of a profession. A 40-hour week is for a man who has a dull job, repetitive, an assembly line sort of stuff, or heavy labor and that’s ample because this man derives no satisfaction from his work, he has to get his satisfaction during his leisure time. But for a person to consider himself a professional, which means your client, or your patient, or a member of your congregation, or your pupil—you come first, I come second. That’s what a professional person is.^{5p12}

Harrison’s reasons for going to BGSOM were the personal connections and his desire to establish a department second to none. His reasons for leaving after two short years were multifold and might have been in part because of his unrelenting attitude towards work. There are suggestions that disagreement about the attending faculty arrangements coupled with Harrison’s notoriously meticulous nature led him to move to Southwestern Medical College in Dallas in 1943.¹¹ However, Harrison also noted that his feeling of responsibility to use his expertise to help establish another school and more personal family reasons pushed him to move on.^{5p24} Whatever the truth, Southwestern Medical College was the benefactor.

BGSOM and Winston-Salem remained special places for

Harrison. He wrote to the members of the class of 1943, the last class he taught at BG,

I still look back on the period in Winston-Salem as one of the peak periods of an academic life that has now lasted nearly one-half century. The greatest thing about it was the smallness of the classes which enabled me to know, personally, every one of you.¹²

He said Winston-Salem was

the greatest community I've ever lived in. . . . The people there, the friendliness, the open-armed attitude they had toward our faculty. I've never encountered this anywhere like it was in Winston-Salem.^{5p25}

Beyond BGSOM

Harrison achieved much in his long career. Besides his accomplishments at Vanderbilt, his remarkable influence as chair of Medicine at BGSOM, Southwestern Medical College, and the University of Alabama at Birmingham, he achieved many other eminent positions—president of the American Society of Clinical Investigation, founder and first president of the Southern Society of Clinical Investigation, President of the American Heart Association, founding member of the Council of the National Heart Institute, and recipient of the Kober Medal, one of the greatest honors an internist can receive.² Beyond these, his most well known contribution to medicine is *Harrison's Principles of Internal Medicine*, first published in 1950 and now in its seventeenth edition. Arguably his greatest gift to medicine is the spirit and philosophy he gave to U.S. medical education. His forward thinking ideas still propel BGSOM's current curriculum for students and house officers. His ethos of medicine still hums in the principles and objectives of American medical education and in our personal and professional development. His words say it best, as he writes in the introduction to the first edition of his seminal work:

No greater opportunity, responsibility, or obligation can fall to the lot of a human being than to become a physician. In the care of the suffering he needs technical skill, scientific knowledge, and human understanding. He who uses these with courage, with humility, and with wisdom will provide a unique service for his fellow man, and will build an enduring edifice of character within himself. The physician should ask of his destiny no more than this, he should be content with no less. . . .

Tact, sympathy, and understanding are expected of the physician, for the patient is no mere collection of symptoms, signs, disordered functions, damaged organs, and disturbed emotions. He is human, fearful, and hopeful, seeking relief, help, and reassurance. To the physician, as to the anthropologist, nothing human is strange or repulsive. The

misanthrope may become a smart diagnostician of organic disease, but he can scarcely hope to succeed as a physician. The true physician has a Shakespearean breadth of interest in the wise and the foolish, the proud and the humble, the stoic hero and the whining rogue. He cares for people.^{1p8}

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