MCAT scores and medical school success: Do they correlate?

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As can be the case with medical practice, admitting the right students to medical school is an inexact science.

Scoring highly on the Medical College Admissions Test (MCAT)—one of the primary measurements used in consideration of medical student admission by medical schools—doesn’t mean you’ll become a great, or even a good, doctor. But historically it has portended success on the licensing exams—the United States Medical Licensing Examination (USMLE) Step 1 and Step 2 exams—that one takes as a medical student.

The importance of those exams may be taking on a different meaning, however, with the Step 1 exam moving to pass-fail scoring.

Take a deeper dive on the data that predicts how a prospective medical student will perform in their undergraduate medical training.

MCAT scores, undergrad GPAs and early success

The average MCAT score for students who matriculated to medical school in 2021–2022, according to the Association of American Medical Colleges (AAMC), was 511.9. Based on 2019 data, if you scored in the average range, your chances of advancing from your first year of medical school to your second year were extremely high—98% of students scoring between 510–513 did so. The numbers only dipped slightly, however, for those who scored 10 points lower, with students who entered medical school with MCAT scores between 498–501 progressing to year two at a 94% rate.

The AAMC also studied undergraduate grade-point average (GPA) as a predictor of medical school success. In partnering with 18 medical schools that measured performance of about 1,000 total students, the study, “Using MCAT Data in 2019 Medical Student Selection,” determined that GPA was
a slightly less impactful predictor of medical student success than MCAT scores. A more effective indicator of how well a first-year student would fare was to look at both MCAT scores and undergraduate grades.

It’s also worth noting that the MCAT’s impact may have a shelf life.

A study published in the journal Military Medicine indicates that by the time medical students became residents, their MCAT score was far less of a predictor of success than it was early in medical school. Researchers behind the 2015 study, “Does the MCAT Predict Medical School and PGY-1 Performance?” wrote that the “MCAT was not able to predict assessments relying on direct clinical observation, nor was it able to predict” program director assessment of performance during residency’s first year.”

Follow this advice to thrive on the MCAT.

The intangibles

An MCAT score assesses intellectual knowledge. That matters: In medical school, the knowledge comes at a furious pace. Still, it is unlikely that any standardized test can ever fully measure competencies beyond medical knowledge that the successful physician possesses, such as empathy, communication skills and teamwork.

Overreliance on just one measure of performance, such as the MCAT, risks missing a pool of candidates with other valuable attributes to contribute to the health care system. The MCAT itself was redesigned in 2015 to include sections that required test-takers to have an understanding of the social and behavioral sciences.

Tonya Fancher, MD, MPH, is the associate dean for workforce innovation and community engagement at the University of California, Davis, School of Medicine (UC Davis). The medical school is one of the 37 members of the AMA Accelerating Change in Medical Education Consortium that is working together to create the medical schools of the future and transform physician training. UC Davis has a strong commitment to holistic selection—looking beyond test scores and grades to consider how an applicant’s life experience and perspectives will contribute to their ultimate success as a physician.

“We value the experiences that students bring to medical school,” Dr. Fancher said. “While we want students to be smart and adaptable, we also value their diverse backgrounds, which can enrich our learning environment and improves our ability to care for all patients.”
The aforementioned AAMC study includes a list of the most important factors admissions offices considered when looking at potential medical students. While MCAT scores and GPAs were listed among the categories of criteria given highest weight, as schools strive to understand the broader competencies that a candidate brings to the table, they report also considering a number of less tangible factors such as leadership and interview results, community service and volunteer work both within and outside of medicine.