

Evaluating Medical School Selection Criteria: Are we choosing the best candidates?

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What makes a good physician? What are some of the character traits or personalities that you look for in someone who is charged with examining, discussing, and deciding on some of the most personal and important aspects of your life? What characteristics make you trust someone to be scalpel-deep in the intimate details of the people you love? Do you consider yourself a valuable member of your health care team? How many times have you walked into your physician's office or a hospital and asked the receptionist where each of your potential physicians went to medical school? Or did their residency? Does the answer to the last two questions matter? If so, why? It's simple: you want to be served by the best physician available in a particular specialty. You want your spouse and your children and your parents to be treated by the most knowledgeable, the most skilled, and the highest regarded physician. That elucidates one last question: does our perception of "best" actually match those last three superlatives?

Best can be an arbitrary description. As a well-educated society, we tend to assign the distinction of "best" to the top tier in a statistical or performance category. The best 100m sprinter is Usain Bolt.¹ The best country in terms of math and science education is Singapore.^{2,3} Inherently, we associate "best" physicians with top-ranked schools, top performance on board exams, and top salaries. But is that really the most appropriate application of the adjective "best" for a physician? Are we relegated to these few, tangible criteria to proclaim someone in charge of our health and often times our *life*, the best? Where is the set of rankings that rates physicians on their ability to explain complex medical conditions in a vernacular that the common man can understand? Where is the poll that groups clinicians on their bedside manner, on their ability to offer comfort and tacit reassurance in even the bleakest of times? Where is the list of physicians who are not ashamed or embarrassed to be faced with a complex condition, an anomaly in terms of pathology, look directly into your face, and say "I don't know, but I am going to do *everything* in my power to find the answer"?

When we take the time to think about

it, the distinction of "best" does not seem as obvious as we would have thought. Unfortunately, these misconceptions of "best" permeate through the entire system of education; from the upper echelons of professional schools to acceptance into undergraduate programs out of high school. The focus of this article will revolve around the medical school admissions process.

It is pertinent to first start off with an overview of the medical school application process. There are two major types of medical schools in the country: allopathic and osteopathic. Students who attend allopathic programs will graduate with "M.D." (medical doctor) after their names and are what many people associate with the term "physician". Students who graduate from osteopathic programs carry the letters "D.O." (doctor of osteopathy) after their name. Both M.D.'s and D.O.'s are bestowed with the same credentials and have almost identical training. In most respects they are the same, and many patients wouldn't be able to tell which one is treating them.

The application process begins with a general, primary application that is sent to all of the schools a student chooses to apply to. This application contains demographic and transcript information, work experience, leadership roles, and other extracurricular activities. It contains the infamous personal statement which asks students to answer in 5300 characters, "Why do you want to be a physician?" It also contains information about your standardized test scores: the medical college admissions test (MCAT). The MCAT can be thought of as "the great equalizer", the one criterion that puts all candidates on a level playing field to gauge the competence of a candidate in relation to his or her peers. A 4-5 hour online examination, the MCAT serves to test students on the information they should have learned during their undergraduate studies necessary for beginning medical school. In short, it tests students on the carry-forward prerequisite courses for medical school curricula.

This initial screening is used to confirm minimum requirements and can determine whether or not individual schools will send the secondary or supplementary application. This application is school-specific and thus

varies from school to school. The items that are rather ubiquitous on these applications, however, are essay questions designed to glean a better idea of a particular candidate. These questions range from "What unique characteristics would you bring to X school?" and "Describe a time in your life in which you faced adversity and discuss how you overcame that adversity". The secondary application also contains the letters of recommendation from faculty members that speak about the abilities of the candidate. After the secondary application is returned, the waiting period for the interview commences. Schools can choose to deny candidates right off the bat or can choose to call candidates for a face-to-face interview and offer them acceptance, waitlist them, or deny them.

An appropriate question at this point might be, "so what's wrong with the process?" It sure seems as if adequate measures are in place to identify strong candidates and rank them based on all of the information and essay responses provided. Students are given ample opportunity to provide detailed information about volunteer and clinical experiences, leadership roles, undergraduate research and publications, and a myriad of other résumé building blocks. They are afforded the opportunity to use their mastery of the English language to succinctly, yet effectively, answer why they are pursuing a career in medicine. They are even given an opportunity to appear in front of an admissions committee and, in a poised and professional manner, answer questions about ethics and motivations while coming off as amicable and competent. Isn't this sufficient?

I would argue that it is not. As a disclaimer, medical schools currently utilize the tools at their disposal and do their best to objectively judge candidates and select the best. The goal of these admissions committees is to find the candidates that will be successful, not to beleaguer applicants out of spite or malice. That being said, the system has some flaws, with the most tragic result being that superb and qualified candidates can fall through the cracks because of rather minor shortcomings in this process. Perhaps the greatest flaw in this process is

the transformation of a student candidate into an aggregate of numbers: GPA, MCAT score, number of credits taken, and number of volunteer hours collected. Unfortunately, when 40,000 applicants apply to an average of 15 schools each, admissions committees are forced to look at an aggregate of numbers.⁴ The rationale behind candidate frustration with this aspect of the process is simple: a patient does not go see an aggregate of numbers; a patient goes to see a physician. Physicians are people who can feel emotion and empathize or can be cold and standoffish. Physicians are individuals who can converse with people from all different backgrounds and relate to each of their situations; or, they can be recalcitrant and far from personable. Clinicians are persons who discuss lab results, test values, and post-operative procedures and formulate a plan on how to proceed such that the patient's best interest is always in mind; they can also be persons that see little value in bedside manner and reassuring patients. My point is, how accurately can an aggregate of numbers gauge someone's personality, problem-solving skills, willingness to learn, and ability to work with and read people?

Sure, many steps in the application process attempt to illuminate these characteristics in a candidate. The essays allow for expression of ideals and morals that are not clarified elsewhere, the GPA gives some indication about the ability to handle copious amounts of scientific data, and the MCAT is an attempt to test aptitudes in basic science concepts. But in this time of grade inflation at all colleges and universities, does GPA paint an accurate picture? The MCAT tests retention from required courses, but does it accurately predict a student's ability to think critically? I would argue that critical thinking and application are the most important attributes of a candidate, as they estimate the ability to solve novel problems.

This invites a new question: have we as undergraduates been taught clinical application? One method of successfully accomplishing this is through clinical case studies. These involve applying basic science knowledge to solve unique and complex problems. Along with this application, students develop the ability to defend and explain their decisions. When proctored correctly, medical case studies turn into a mock differential diagnosis with a team of "specialists" discussing all possible causes for a particular condition. After generating a list of possibilities, the group or individual can systematically move down the list, describing tests or assays that should be performed to confirm or deny each condition. This type

of approach involves some of the most evaluative and analytical types of critical thinking and requires the synthesis of concepts from the whole of the pre-med curriculum.

Students who possess the aforementioned skills may not be able to convey these attributes on the primary application. Someone who doesn't fall into the optimal range for GPA, the MCAT score, or a combination of both will not be offered an interview and possibly not even the secondary application. Interviews are only offered for the best applicants. Ah, and here we get back to the distinction of "best". Medical schools can only use the tools they are given to judge a particular applicant; that point is not being contested. GPA's can be a fairly accurate predictor of scholastic aptitude and it would be foolish not to factor in one's GPA in consideration for entrance into medical school. The MCAT, again, is the "great equalizer", the *single* part of all 40,000 candidates' applications that can be measured equally by Lady Justice and her scales. The effort made here by AAMC and AACOM, the two governing bodies of allopathic and osteopathic programs, respectively, is a good one, but it is not sufficient. They are limited, of course, due to the number of applicants.

The goal of the current admissions process is not strictly seeking students who will be good medical school students, they are looking for people who will be good physicians. I argue that this should involve searching for students with aptitudes that the MCAT cannot test: the ability to break complex medical jargon down into language that patients can understand and feel comfortable about, a bedside manner that is warm and reassuring, and critical thinking skills that lead to the best possible care. Students who score below or even in the lower tiers of a school's MCAT range may possess these aptitudes while other students who scored in the top percentiles may be severely lacking. A high score on the MCAT by no means guarantees a person who displays any of the aforementioned characteristics that we expect in physicians who care for ourselves and for our loved ones. The MCAT successfully measures some ability to perform well under stress, rote memorization of basic concepts in physics, biology, and chemistry, and some degree of critical thinking in the application of that knowledge to difficult questions asked on the exam.

One shortfall of the "great equalizer" is that it cannot test the skills that distinguish medical school graduates from great physicians. There are plenty of people who

are intelligent enough to attend and do well in medical school. There are far fewer people that have the ability to face a patient and communicate on a level in which the patient understands exactly what is happening to them. The MCAT, although a great equalizer among candidates, cannot account for the social competencies and communication skills that compose the large gap between smart kids who can dictate the laws governing quantum physics and those students who can relate to the person who is the patient. The cases that physicians see each day are people; they are certainly more than an aggregate of signs and symptoms waiting to be treated. The essence of interaction, empathy, and the recognition of human dignity cannot be found in a scaled score. As such, the disqualification of a student based on his or her MCAT score would be a travesty.

So how do we solve the problem of admitting students who lack these skills yet have numbers on their application that suggest they might be the "best" candidates, while denying students who possess attributes we want in our physicians because they didn't score among the top tier candidates? This is not an easy question to answer. Interviewing all candidates would give committees a much clearer picture of candidates but is vastly implausible with the number of applicants for each school. Letters of recommendation should delineate these skills for a candidate, but these letters don't appear to carry the weight with a committee that they should. I suggest this: medical schools ultimately need an insider, someone who has observed and interacted with candidates in more than an academic capacity. They need someone who not only sees a student digest new information, but also identifies students with an aptitude for application. This is manifested best when this insider can observe the level of understanding a student has when that student teaches it to someone else. Seeing a student in a TA or GTA role or in a tutoring capacity can provide the insider with all the information they need about responsibility, owning their work, teamwork, being a leader, interacting with people, simplifying complex issues, breaking down concepts, and, perhaps most important, truly caring about others.

Unfortunately, systems like this are difficult to implement. Recently, however, a collaboration between Colorado State University (CSU) and Rocky Vista University College of Medicine (RVU) has begun which may serve as a model for future changes in this process. As part of this collaboration, a select few students are recommended for acceptance into the medical school after completion of a master's program at CSU.

This agreement provides the ability to assess a number of things: the degree to which students can accept responsibility, whether students are mature enough to say “I don’t know” instead of guessing, the ability to work in a team setting with long hours and strict deadlines, and the ability to lead that team and bring members to a higher level of achievement. This collaboration allows CSU to recommend candidates they *know* are quality applicants because they have seen these applicants in numerous roles that distinguish them from their peers. Consequently, it ensures RVU that they are receiving the best possible, all-around candidates instead of potentially accepting students who look great on paper but lack

crucial intangible skills that should typify a physician.

In short, collaborations like the CSU/RVU example allow medical schools to have an insider, someone who can pick out the students that would normally fall through the cracks yet would contribute an exceptional amount to that medical school, and someone who can rule out the candidates that would succeed in medical school but would flounder as physicians. Although it is not a system that can be changed overnight or even in a decade, any divergence from the path that we have been on for years could make a significant difference in the lives of candidates who would truly make the “best” physicians.

References

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