

Analysis of Candidate Competency Requirements in Medical College Talent Selection and Strategies for Improvement

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Abstract: Talent selection at medical colleges directly shapes enrollment quality and the pipeline of future healthcare professionals. This paper examines four core competency dimensions that selection processes should target—clinical practice ability, professional ethics and responsibility, communication and collaboration skills, and capacity for innovation and lifelong learning. It then identifies several structural shortcomings in current selection practices: over-reliance on exam scores, poorly defined competency assessment criteria, insufficient career education at the high school level, and weak alignment between medical college admission policies and the ongoing reform of the college entrance examination. To address these issues, the paper proposes diversifying evaluation methods, developing clearer competency-based assessment frameworks, expanding pre-college medical literacy education, and building a tighter feedback loop between selection and training. These findings offer practical directions for reforming conventional talent selection in medical education.

Keywords: Medical colleges; Talent selection; Candidate competencies; Professional competence; College entrance examination reform

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1. Introduction

China's medical education has expanded fast in recent years, and the healthcare industry's appetite for well-trained professionals keeps growing. Against this backdrop, how medical colleges pick their students is getting more attention than ever. Several policy documents—including the State Council's Guidance on Accelerating the Innovation and Development of Medical Education—have made it clear that medical schools need to raise admission quality, fine-tune how they select and train talent, and build a system that actually answers to what the profession demands^[1]. The ongoing reform of the National College Entrance Examination (Gaokao) has also thrown new variables into the mix. The old model—admissions driven almost entirely by test scores—is gradually giving way to something that accounts for broader qualities. High

schoolers now have to weigh career interests against subject choices when picking courses. All of this means medical colleges can't just look at grades anymore. They also need to pay attention to the stuff that really matters in medicine: clinical aptitude, professional ethics, communication ability, and innovative thinking.

That said, the current selection process still has real problems. The methods are too narrow, and there isn't enough focus on whether applicants actually have what it takes for medical work. These shortcomings don't just hurt admission quality—they ripple into the whole pipeline of medical workforce development. Figuring out how to spot and assess candidate competencies within existing selection frameworks is becoming an urgent task.

2. What medical colleges actually need from applicants

Medical schools exist to produce versatile, high-quality graduates for the healthcare system. So the competencies they look for in applicants are pretty specific—a mix of baseline abilities for medical practice and the traits that predict long-term professional growth.

2.1. Clinical aptitude

Clinical ability sits at the core of what makes a doctor. So it's a natural priority in admissions. Medicine demands strong observation, logical reasoning, and at least the potential for hands-on procedural skill^[2]. A good med student should be able to look at a simulated patient, figure out what's going on, pull out the relevant information, and make a reasonable call. On the procedural side, steady hands and precise movements matter. Whether an applicant has these basics directly shapes how well they'll learn in med school and how far they'll go afterward.

2.2. Professional ethics and responsibility

Medicine is fundamentally about saving lives. That raises the bar on ethics and accountability. Professional ethics means more than just following rules—it's about genuinely respecting patients' lives and showing real empathy, without which no amount of clinical skill adds up to good care^[3]. Responsibility shows up when someone puts the patient first in high-stress situations and actually follows through. Whether a candidate cares about medicine, respects patients, and can handle real accountability—these are things medical colleges need to take seriously, because they predict whether that person will become a doctor people can trust.

2.3. Communication and teamwork

Modern medicine runs on teams. Doctors have to work smoothly with nurses, technicians, and other physicians, while also talking clearly with patients and their families. So basic communication ability, interpersonal sensitivity, and a collaborative mindset are non-negotiable. A physician needs to explain diagnoses and treatment plans in plain language while calming a worried patient. Without that skill, distrust builds and treatment outcomes suffer. In multidisciplinary teams, the best doctors are the ones who can voice their opinions clearly and still genuinely listen to others. Communication and collaboration belong at the center of medical talent selection—not as a nice-to-have but as a must-have.

2.4. Innovation and lifelong learning

Medical technology moves fast, and healthcare models keep evolving. Future doctors need to keep learning—it's not optional. A student with innovative thinking might try to improve a lab procedure on their own or

work with a supervisor on developing a new device. Lifelong learning means staying on top of new research and actually engaging with it. Medical colleges should be looking for applicants who adapt quickly and solve problems effectively—people who can stay competent in a field that never stops changing.

3. Problems with the current selection system

Medical school admissions are supposed to be a quality gate for the whole profession. While the competency requirements we just discussed cover a lot of ground, the actual selection process falls short in several important ways.

3.1. One-dimensional assessment

Most medical colleges still admit students based almost entirely on Gaokao scores. That approach rewards academic performance but ignores most of the competencies that actually matter. The problems pile up:

First, there's not enough evaluation of real professional qualities. Standardized tests can't tell you much about someone's communication skills, psychological resilience, or clinical potential. High scorers might be great at exams but weak where it counts. Second, there's nothing specific to medicine in the selection process. Nobody's designing assessments for manual dexterity, logical reasoning under time pressure, or interpersonal sensitivity during selection.

3.2. Fuzzy standards for professional competency

Medical school admissions should weigh professional competencies alongside academic performance. But right now, competency assessment standards are neither systematic nor consistent. On one side, the evaluation content is ad hoc—most competency judgments are subjective, without objective tools like scenario tests or case analyses to measure psychological traits and clinical potential reliably. On the other side, there's no shared framework. No national or regional guidelines exist for what medical competencies to assess, so different schools use different criteria, which raises questions about fairness and rigor.

3.3. Weak career preparation in high school

Medicine is a field that demands strong career awareness and genuine interest. What students do—or don't do—in high school matters a lot. But career education about healthcare is notably lacking.

For one thing, most applicants only have a superficial idea of what medicine actually involves. They don't really understand the challenges or the learning curve, which can lead to adjustment problems or vague career goals after enrollment. For another, there's almost no targeted preparation. Students rarely get communication training or teamwork experiences tied to medical demands before they apply, so they show up underprepared.

3.4. Gaokao reform creates new mismatches

Under the reformed Gaokao system, high school students get to pick which subjects to focus on and which colleges to apply to. On paper, more autonomy sounds good. But for medical schools, this new flexibility creates a real problem.

Quite a few applicants end up dropping chemistry or biology from their subject portfolio after realizing those courses are harder to score high in ^[4]. By the time they enter medical college, they lack the basic science foundation needed for first-year courses. The Gaokao reform was supposed to match student interests

with their chosen majors, but medical colleges have been slow to adjust their admissions policies in response. So the selection process ends up with a gap: students choose what they can get high marks in, not what prepares them for medicine.

4. Strategies for optimizing talent selection at medical colleges

Fixing the problems above requires work on several fronts. Four areas stand out: how admissions are conducted, how professional competencies get measured, whether high schools do enough to prepare future med students, and whether selection results actually shape what happens after enrollment.

4.1. Expanding assessment methods and diversifying evaluation

Admissions could go beyond test scores by adding situational judgment exercises, case-based reasoning tasks, and structured interviews. An SJT presents applicants with realistic clinical scenarios and asks how they would respond—useful for measuring adaptability and decision-making under pressure. Case analysis reveals whether a student can identify key information and propose a rational course of action. A well-designed interview can uncover genuine interest in medicine and assess communication style. On top of these, medical colleges should publish clear subject prerequisites—physics, chemistry, and biology—so students know exactly what they need to take in high school if they want a realistic shot at admission ^[5].

4.2. Establishing systematic professional competency standards

Right now, professional competency assessment at most institutions amounts to little more than gut feelings in interviews. That has to change. Medical colleges need to identify which competencies actually predict success in their programs, then translate abstract qualities—empathy under stress, ethical reasoning, team behavior—into concrete, observable indicators. Some schools have begun piloting situational judgment tests and behavioral description interviews. Others are experimenting with validated psychological scales. If enough institutions adopt shared standards, the whole field benefits: applicants know what they are being judged on, schools apply consistent criteria, and the process becomes harder to game.

4.3. Strengthening medical career education at the high school level

Most high school students who apply to medical colleges have never shadowed a doctor or spent time in a hospital. Their understanding of medicine comes from TV shows. Schools could address this by organizing hospital observation days, inviting physicians for guest lectures, or running basic clinical simulation workshops. Even a half-day exposure can change how a student thinks about the profession. Career counseling offices should also offer medicine-specific guidance: helping students pick the right courses, explaining what med school actually looks like, and pointing them toward volunteer opportunities in healthcare settings. The earlier students understand what the job requires, the more intentional they can be about building relevant competencies.

4.4. Linking selection outcomes with training mechanisms

Admission is only the first step. Once students arrive on campus, the competency data collected during selection should inform how they are taught. For example, if an incoming cohort shows weak communication skills on the admissions interview, the first-year curriculum could include extra patient-interaction training. If career motivation seems vague, mentorship programs can step in early. Over time, evaluation data from the training phase should

feed back into how admissions criteria are set—closing the loop between who gets in and how they perform. This kind of selection-training feedback cycle keeps both sides improving. These changes, taken together, would push medical college admissions toward something more targeted and fairer. The goal is not just to admit students with high test scores, but to find the ones who will actually thrive in medicine and stick with it.

5. Conclusion

Medical education in China is moving toward tighter alignment between how students are selected and what the profession demands. As the Gaokao reform continues and the healthcare industry's needs shift, admissions processes must also evolve—by continually updating evaluation methods and standards. It is equally important to align selection with training once students arrive. Dynamic adjustments to training models can strengthen professional competencies and practical skills across the board. Future work could focus on developing more robust models for evaluating professional competencies and testing them across broader samples, so medical education has stronger empirical grounding for both selection and training decisions.

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