

HOD ACTION: Council on Medical Education Report 3 adopted as amended and the remainder of the report filed.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 3-A-11

Subject: Enhancing Attention to Personal Qualities in Medical School Admission

Presented by: Barretta R. Casey, MD, MPH, Chair

Referred to: Reference Committee C  
(Robert J. Havlik, MD, Chair)

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1 In 2010, the Center for Transforming Medical Education was formed to continue the goals  
2 established by the American Medical Association’s Initiative to Transform Medical Education  
3 (ITME), which began in 2005. The ITME goal for medical school admission was to “apportion  
4 more weight in admissions decisions to characteristics of applicants that predict success in the  
5 interpersonal domains of medicine.”<sup>1</sup>

6  
7 Medical educators (and the public) agree that being a “good doctor” is more than academic  
8 achievement and other measures of intellectual ability. There have been calls for a more “holistic  
9 assessment”<sup>2</sup> of medical school applicants to include a wider variety of personal qualities, such as  
10 altruism, motivation for medicine, dedication, and intellectual curiosity, in the admissions process.  
11 A recent study of academic affairs officers and admissions officers at US MD-granting medical  
12 schools identified the most important attributes required for student success in medical school (see  
13 Table 1 in the Appendix), including integrity, motivation for a career in medicine, and reliability  
14 (Association of American Medical Colleges, unpublished data, 2008). In this report, “personal  
15 qualities” will be used to describe the desirable characteristics or attributes, such as those listed in  
16 Table 1, in accordance with the term used in AMA Policy H-295.888 “Progress in Medical  
17 Education: the Medical School Admission Process” (AMA Policy Database).

18  
19 Research underscores the importance of finding ways to measure personal qualities. For example,  
20 a retrospective look at physicians sanctioned by state medical licensing boards for various types of  
21 professional misconduct showed a high correlation with similar behaviors during medical school.<sup>3</sup>  
22 Assessing personal qualities of medical school applicants, however, is difficult. The Medical  
23 College Admission Test (MCAT) and the grade point average (GPA) are routinely relied upon by  
24 medical schools as predictors of applicants’ academic success during medical school and beyond.  
25 While quantitative tools such as the MCAT have been developed with great expertise, medical  
26 school admissions committees recognize that they do not capture all of the personal qualities  
27 needed to become a successful physician. Currently, tools to assess personal qualities are limited.  
28 The tools now used by many admissions committees to assess applicants’ personal qualities during  
29 the initial screening of applicants, including personal statements and other written materials, are not  
30 fully objective and are insufficient with regard to validity and reliability.<sup>4,5</sup> Addressing this gap  
31 within the medical school admissions process is an on-going goal of the AMA.

32  
33 This report: 1) summarizes relevant AMA policies on medical school admissions; 2) describes  
34 AMA activities on medical school admissions; and 3) describes other efforts to enhance assessment  
35 of personal qualities during the admissions process including those by the Association of American  
36 Medical Colleges (AAMC).

1 AMA POLICIES ON MEDICAL SCHOOL ADMISSIONS

- 2
- 3 • AMA policy advocates that medical schools give significant weight to personal qualities,  
4 such as empathy, integrity, and commitment to service, during the admissions process  
5 (Policy H-295.888, “Progress in Medical Education: the Medical School Admission  
6 Process”), as well as the ability to acquire the knowledge and skills required of a physician.  
7 (Policy H-295.995, “Recommendations for Future Directions for Medical Education”) The  
8 full text of H-295.888 and the relevant text (paragraphs 1 – 7) of H-295.995 are included as  
9 an attachment to this report.
  - 10 • AMA policy supports research on ways to reliably evaluate personal qualities of applicants  
11 to medical school (Policy H-295.888).
  - 12 • AMA policy supports the recommendations contained in Future Directions for Medical  
13 Education including:
    - 14 ○ Schools of medicine should accept the principle and should state in their  
15 requirements for admission that a broad cultural education in the arts, humanities,  
16 and social sciences, as well as in the biological and physical sciences, is desirable.
    - 17 ○ Medical schools should make their goals and objectives known to prospective  
18 students and premedical counselors in order that applicants may apply to medical  
19 schools whose programs are most in accord with their career goals. Medical  
20 schools should state explicitly in publications their admission requirements and the  
21 methods they employ in the selection of students (Policy H-295.995).
- 22

23 AMA ACTIVITIES ON MEDICAL SCHOOL ADMISSIONS

24

25 Furthering the AMA’s interest in improving assessment of personal qualities in the recruitment  
26 process for medical school applicants led to two AMA activities on medical school admissions: an  
27 ITME Conference on Medical School Admissions and a review of how personal qualities are  
28 assessed among medical school applicants.

29

30 *Conference on Medical School Admissions*

31

32 The AMA, with the collaboration of the AAMC, held the AMA ITME Conference on Medical  
33 School Admissions on December 9-10, 2009. This invitational conference was attended by a  
34 diverse group of 30 leaders from a variety of fields whose activities influence the admissions  
35 process. The main outcome of the conference was a set of recommendations for increasing  
36 attention to behavioral competencies in the admissions process. These recommendations have been  
37 widely circulated to the three key stakeholder groups for which they were developed: medical  
38 schools, admissions committees, and the medical education community. The conference executive  
39 summary and recommendations are available online at:

40

41 <http://www.ama-assn.org/ama1/pub/upload/mm/40/behavioral-competencies-medical-students.pdf>.

42

43 *Assessing behavioral competencies of medical school applicants*

44

45 A review of the admission Web sites of the 131 US LCME-accredited medical schools with a 2010  
46 entering class was conducted to explore: 1) the extent to which medical schools specify the  
47 behavioral competencies that are assessed during the admissions process; 2) how behavioral  
48 competencies of applicants are assessed by medical schools; and 3) when, during the admissions  
49 process, behavioral competencies are assessed.

1 It was found that 65% (n = 85) of the 131 medical school admission Web sites identified at least  
2 one personal quality desired of applicants. The five personal qualities with the highest frequencies  
3 were: motivation, maturity, compassion, leadership, and integrity. Sixty percent (n = 51) of Web  
4 sites specified the tool or method (such as personal essay) used to assess at least one behavioral  
5 competency. Among the 51 schools that assessed behavioral competencies, 18 (35%) conducted  
6 the assessment solely at the interview. Based on this study, it is recommended that all medical  
7 schools specifically state on their Web sites the behavioral competencies that are included among  
8 their criteria for admission as well as how and at what point during the application process that  
9 assessment takes place. Results from the review provide further support for AMA Policy  
10 H-295.995 (see AMA Policies on Medical School Admissions section above) and for continued  
11 collaboration with AAMC and other stakeholders working on the issue.  
12

### 13 AAMC ACTIVITIES ON MEDICAL SCHOOL ADMISSIONS

14

15 The goal of the AAMC's current activities on medical school admission is to "improve the  
16 selection process to create a diverse, capable, and caring physician workforce for the 21st century."  
17 Currently, the AAMC is engaged in three projects directly related to assessing personal qualities of  
18 medical school applicants: 1) The Fifth Comprehensive Review of the MCAT (MR5), 2) the  
19 Holistic Review Project, and 3) the Social and Behavioral Sciences Project. A brief summary of  
20 each project follows. The full description of these and related AAMC admissions initiatives can be  
21 found online at: <https://www.aamc.org/initiatives/54250/admissions/>.  
22

#### 23 *Fifth Comprehensive Review of the MCAT (MR5)*

24

25 The AAMC is in the process of conducting a comprehensive review of the MCAT. This is the fifth  
26 time the MCAT exam has been evaluated since it was first administered in 1928. The MCAT is  
27 being reviewed by a 21-member committee charged with recommending changes aimed at  
28 increasing the MCAT's value to medical school admissions committees. The committee is  
29 considering recent calls for new information about applicants' professional competencies, such as  
30 cultural competence, communication skills, and professionalism; however, the committee has noted  
31 the difficulty of measuring personal characteristics. Additional information is available online at:  
32 <http://www.aamc.org/meded/admissions/mr509.pdf>.  
33

#### 34 *Holistic Review Project*

35

36 Holistic Review of applications approaches the application process in a wider context than using a  
37 single or a few factors to determine a cut-off for consideration. Many factors are considered as  
38 well as their relationship to one another. Holistic review affords admissions committees the  
39 opportunity to link the attributes and characteristics of applicants to their schools' missions.  
40

41 According to the project Web site, the purpose of the AAMC Holistic Review Project is to develop  
42 tools and resources that medical schools can use to create and sustain medical student diversity.  
43 Medical school staff serving on academic affairs committees and staff serving on diversity  
44 committees are the primary collaborators on the Holistic Review Project. The project focuses on  
45 the application and admissions process in the context of medical school mission and goals and  
46 other institutional efforts that promote diversity, such as outreach, recruitment, financial aid, and  
47 retention. A set of recommendations will be developed. Additional information is available online  
48 at: <https://www.aamc.org/initiatives/opi/holisticreview/>. Further, the AAMC 2010 resource

1 for medical schools on holistic admissions, *Roadmap to diversity: Integrating holistic review*  
2 *practices into medical school practices*, is available at:

3  
4 [https://services.aamc.org/publications/index.cfm?fuseaction=Product.displayForm&prd\\_id=294&prv\\_id=365](https://services.aamc.org/publications/index.cfm?fuseaction=Product.displayForm&prd_id=294&prv_id=365).

### 7 *Social and Behavioral Sciences Project*

8  
9 The Social and Behavioral Sciences Project is an AAMC initiative designed to create general  
10 consensus within the medical education community on the skills, attitudes, and knowledge that  
11 graduating medical students should possess. The goals of the project are to set forth program-level  
12 learning objectives that medical school deans and faculties can use as a guide in reviewing their  
13 medical student education programs (Phase I); and to suggest strategies that medical school deans  
14 and faculties might employ in implementing agreed-upon changes in their education programs  
15 (Phase II). Additional information is available online at:

16 <http://www.aamc.org/meded/msop/start.htm>.

### 18 INNOVATIVE ASSESSMENT PROJECT FROM THE FIELD

19  
20 An innovative method for assessing personal qualities of medical applicants was identified and is  
21 described below.

#### 23 *Multiple Mini-Interview (MMI)*

24  
25 The Multiple Mini-Interview, developed at the Michael G. DeGroot School of Medicine, McMaster  
26 University in Hamilton, Ontario, Canada<sup>6</sup> is an assessment tool which uses objective structured  
27 clinical examination (OSCE)-style format.<sup>7</sup> The main purpose of the MMI is to assess cognitive  
28 and non-cognitive skills of medical school applicants.<sup>7,8</sup> The MMI protocol consists of stations or  
29 “multiple, focused encounters”<sup>7</sup> set up to assess specific skills and characteristics of applicants  
30 including communication, reasoning, and empathy that are considered desirable and important for  
31 applicant selection. Eight to ten stations are most often used by medical schools. Each station has a  
32 different interviewer(s) and lasts about 5-10 minutes. The MMI aims to overcome limitations of  
33 the traditional interview including the inability to identify optimal personal attributes. Individual  
34 studies have found the MMI reliable and valid.<sup>8</sup> While originally developed at McMaster, medical  
35 schools in the United States have begun using some form of this approach. There has been no  
36 report to date of their experiences.

### 38 DISCUSSION AND RECOMMENDATIONS

39  
40 While there is agreement within the medical profession and the public that personal qualities such  
41 as integrity, maturity, and compassion are integral to being a successful physician, currently there  
42 are limited ways to assess them in a valid and reliable manner. Since the majority of admissions  
43 committees process several thousand applications per year,<sup>9</sup> they rely heavily on quantitative tools  
44 such as the MCAT and GPA, indicators of academic success in the first two years of medical  
45 school, that have been shown to be valid and reliable. Further understanding is needed of the  
46 personal qualities that are most important to becoming a successful physician. What specific  
47 qualities are needed during medical school? Do these qualities change over time? What qualities  
48 enhance the ability of learners to succeed despite changing conditions? For example, the learning  
49 environment has a strong effect on medical students which may operate regardless of the personal  
50 qualities students possess when they enter medical school. Perhaps admissions committees should

1 emphasize resilience or adaptability among applicants as a predictor of ability to counter or ignore  
2 negative influences in the learning environment.<sup>10,11</sup>

3  
4 Work is ongoing to advance the medical school admission process, including developing  
5 innovative tools and measures to adequately assess relevant personal qualities of medical school  
6 applicants. These efforts must be supported and furthered so that medical schools admit and train  
7 future physicians who are proficient in knowledge and skills as well as who possess personal  
8 qualities that optimize their ability to provide compassionate care to patients.

9  
10 Therefore, the Council on Medical Education recommends that the following recommendations be  
11 adopted and that the remainder of the report be filed:

- 12  
13 1. That our American Medical Association (AMA) continue to work with the Association of  
14 American Medical Colleges (AAMC) and other relevant organizations to encourage  
15 improved assessment of personal qualities in the recruitment process for medical school  
16 applicants including types of information to be solicited in applications to medical school.  
17 (Directive to Take Action)
- 18  
19 2. That our AMA work with the AAMC and other relevant organizations to explore the range  
20 of measures used to assess personal qualities among applicants, including those used by  
21 related fields. (Directive to Take Action)
- 22  
23 3. That our AMA encourage the development of innovative methodologies to assess personal  
24 qualities among medical school applicants. (Directive to Take Action)
- 25  
26 4. That our AMA work with medical schools and other relevant stakeholder groups to review  
27 the ways in which medical schools communicate the importance of personal qualities  
28 among applicants, including how and when specified personal qualities will be assessed in  
29 the admissions process. (Directive to Take Action)
- 30  
31 5. That our AMA encourage continued research on the personal qualities most pertinent to  
32 success as a medical student and as a physician to assist admissions committees to  
33 adequately assess applicants. (Directive to Take Action)
- 34  
35 6. That our AMA encourage continued research on the factors that impact negatively on  
36 humanistic and empathetic traits of medical students during medical school. (Directive to  
37 Take Action)
- 38  
39 7. That our AMA reaffirm Policy H-295.995 [1-7] "Recommendations for Future Directions  
40 for Medical Education," regarding future directions for medical education. (Reaffirm HOD  
41 Policy)

Fiscal Note: Less than \$500.

## APPENDIX

Table 1: Top Attributes Required for Student Success in Medical School as Rated by Academic Affairs and Admissions Officers

Attributes	Academic Affairs Officers (n = 120)	Admissions Officers (n = 97)
Integrity	4.6	4.6
Cognitive ability	4.6	--
Reliability and dependability	4.5	4.4
Motivation for a medical career	4.4	4.4
Treating others with respect	4.4	--
Self-discipline	4.4	4.3
Problem solving	4.3	--
Empathy	4.3	--
Compassion	4.3	4.3
Oral comprehension	4.3	--
Critical thinking	4.2	4.5
Active listening	4.2	--
Logical reasoning	4.2	4.4
Personal maturity	4.2	4.4
Resilience/Tolerance for stress	4.2	3.9
Oral communication	4.2	4.2
Attention to detail	4.1	--
Intellectual curiosity	4.1	4.2
Persistence	4.1	3.9
Integrating and applying information	4.1	4.4
Adaptability/Flexibility	4.1	4.0
Teamwork	4.1	4.3
Commitment to lifelong learning	4.1	--
Achievement orientation	4.0	--
Biology lecture	4.0	3.9
Altruism/Service orientation	4.0	3.8
Dutifulness	4.0	--

Source: AAMC 2008 Survey of Academic Affairs Officers and Admissions Officers

\* Double dashes indicate attributes that were added to Academic Affairs Officers' survey based on feedback from the MR5 committee that some important attributes were missing from the Admissions Officers' survey.

+ The table contains a subset of the data and the rating scale.

## References

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## ATTACHMENT

### H-295.888 Progress in Medical Education: the Medical School Admission Process

Our AMA encourages: (1) research on ways to reliably evaluate the personal qualities (such as empathy, integrity, commitment to service) of applicants to medical school and support broad dissemination of the results. Medical schools should be encouraged to give significant weight to these qualities in the admissions process; (2) premedical coursework in the humanities, behavioral sciences, and social sciences, as a way to ensure a broadly-educated applicant pool; and (3) dissemination of models that allow medical schools to meet their goals related to diversity in the context of existing legal requirements, for example through outreach to elementary schools, high schools, and colleges. (CME Rep. 8, I-99; Reaffirmed: CME Rep. 2, A-09)

### H-295.995 Recommendations for Future Directions for Medical Education

The AMA supports the following recommendations relating to the future directions for medical education: (1) The medical profession and those responsible for medical education should strengthen the general or broad components of both undergraduate and graduate medical education. All medical students and resident physicians should have general knowledge of the whole field of medicine regardless of their projected choice of specialty. (2) Schools of medicine should accept the principle and should state in their requirements for admission that a broad cultural education in the arts, humanities, and social sciences, as well as in the biological and physical sciences, is desirable. (3) Medical schools should make their goals and objectives known to prospective students and premedical counselors in order that applicants may apply to medical schools whose programs are most in accord with their career goals. (4) Medical schools should state explicitly in publications their admission requirements and the methods they employ in the selection of students. (5) Medical schools should require their admissions committees to make every effort to determine that the students admitted possess integrity as well as the ability to acquire the knowledge and skills required of a physician. (6) Although the results of standardized admission testing may be an important predictor of the ability of students to complete courses in the preclinical sciences successfully, medical schools should utilize such tests as only one of several criteria for the selection of students. Continuing review of admission tests is encouraged because the subject content of such examinations has an influence on premedical education and counseling. (7) Medical schools should improve their liaison with college counselors so that potential medical students can be given early and effective advice. The resources of regional and national organizations can be useful in developing this communication.