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**Reducing Health Disparities through the 2015 MCAT: A Bold Goal
Requiring On-going Assessment**

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ABSTRACT

There is broad consensus that reduction in health care disparities is an important and multi-faceted challenge. One possible approach, among many others, starts with the attraction of women and men to the field of medicine who have a broad based education and who can demonstrate cultural understanding and sensitivity. In this context, the Medical College Admissions Test (MCAT) has been revised, effective in 2015, to include many additional questions concerning the psychological, social, and behavioral sciences. There are important assumptions fueling the revised Medical College Admissions Test (MCAT) and these will need to be tested. These assumptions range from influencing course selection by undergraduates interested in applying to medical school to improving health outcomes and reducing disparities. The revisions in the MCAT embody the belief that future physicians must have a broader education than at present to be better responders to their patients and to their communities. There are three major expectations from the MCAT revisions. First, undergraduates interested in applying to medical school will be motivated to enroll in a broader range of courses in the social sciences and humanities to be better prepared for the MCAT. Second, the broader range of undergraduate courses will hopefully translate into physicians who are more intellectually diverse and culturally sensitive. Third, the new physicians will have a more active and direct role in improving the health of the populations including a reduction in the current health care disparities. While these bold expectations are untested and must be measured, there is evidence that provides a foundation for this hypothesis. Numerous studies indicate that racial disparities in health care quality and health care outcomes result from cultural barriers and provider's insensitivities. The pathway to a reduction in health care disparities is clearly multi-dimensional with many causal factors in the way. Nevertheless, the revision in the MCAT may be an important step in preparing physicians for a more active role in reducing disparities. This essay recommends concentrated research to analyze the effectiveness of the MCAT revisions and their impact on health care disparities, focusing on the aforementioned three expectations. This requires both short-term and long-term analyses. While the methods to complete these analyses are clearly complex, they are necessary before any conclusions about the expected impact of the MCAT revisions on health care disparities can be made.

Keywords: 2015 MCAT; cultural competence; culturally literate; patient-centeredness; health care disparities

INTRODUCTION

The United States' growing identity as a cultural melting pot has induced a number of responses to improve the cultural competency of health care providers with the goal of enhancing patient-centered health care and eliminating racial disparities that produce unequal healthcare outcomes.^{1,2} This essay will focus on a recent upstream policy intervention: the revised Medical College Admission Test (MCAT) that will launch in 2015.³

The 2015 MCAT will contain a substantial number of new questions focusing on “the psychological, social, and biological foundations of behavior” with the goal of increasing patient-centeredness and cultural literacy in health care delivery by selecting and cultivating more holistic and culturally literate physicians for the future (Ananth and Jonas, 2013). The revised MCAT's incorporation of psychological, social, and behavioral sciences presents an untested hypothesis that aims to select students who demonstrate cultural competency, suggesting their greater potential as patient-centered and culturally literate physicians. This hypothesis claims that medical schools will cultivate a new breed of physicians from the 2015 MCAT admissions, who differ from their more narrowly prepared predecessors, because they will carry cultural sensitivity into their medical educations, residencies, and careers. The authors of the new MCAT assume that an increased cultural competency by physicians will diminish cultural barriers, improve physician-patient communication, establish a trusting therapeutic relationship, and, ultimately generate more positive patient health outcomes. While evidence stemming from related studies supports this hypothesis, actual research is unlikely to support the hypothesis until more than a decade into the medical careers of the revised MCAT examinees. This will require a longitudinal study for multiple decades, but improved health outcomes in key populations ought to become measurable in ten to twenty years. Nonetheless, identification of intermediate outcomes could begin as early as 2020.

METHODS

The current racial disparities in health care quality partly result from cultural barriers in the medical delivery system. Recent studies indicate that a lack of patient-centeredness and cultural competency correlates to lower patient satisfaction, and lesser adherence to the medical recommendations from the physician (Frankel et al., 2011). Evidence of the racial disparities in health care quality resulting from these two consequences is apparent in Figure 1, which profiles the significance of language barriers in health care, observing that, “Asians and Hispanics are less likely to understand their doctor and less likely to feel their doctor listened to them than blacks and whites.” While 68-69% of white patients feel the doctor listens to them and

¹ The Institute of Medicine's (IOM) 2001 report “Cross the Quality Chasm: A New Health System for the 21st Century” declared patient-centered care as one of the six goals that a health care delivery system should strive to attain. The other five goals were safe, effective, timely, efficient, and equitable care. (Wolfe, 2001).

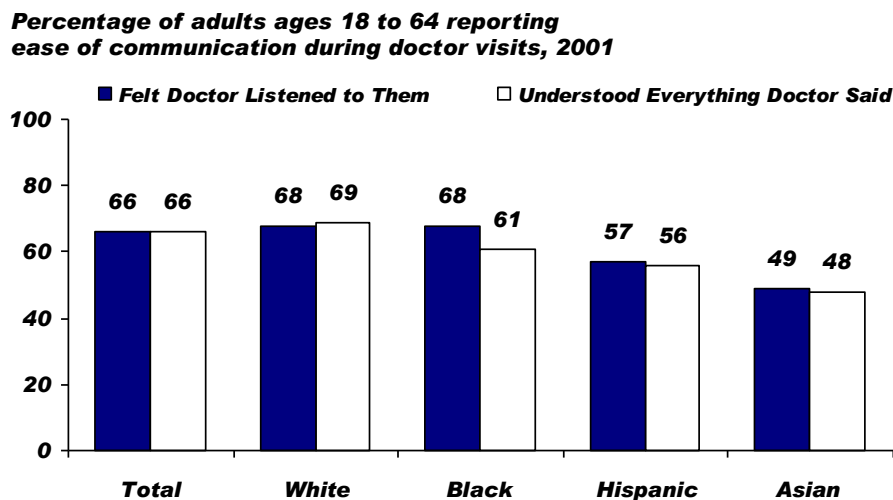
² One definition of cultural competency is “the ability of individuals to establish effective interpersonal and working relationships that supersede cultural differences by recognizing the importance of social and cultural influences on patients, considering how these factors interact, and devising interventions that take these issues into account.” (Beacher et al., 2005).

³ The intervention qualifies as “upstream,” because attempting to change the selection process for medical school admissions has downstream effects, such as a new breed of medical student and future physician.

understands everything the doctor said, only 48-49% of Asians feel that way. When a racial minority patient experiences this form of dysfunctional communication with his physician, the patient will likely experience a lesser quality of health care intervention than a white patient who acquires a higher comprehension level with his physician.

Racial disparities in health care quality also result from cultural insensitivity by the medical providers. Figure 2 supports this notion by stating that, “Asian or Pacific Islander hospice patients are least likely to receive end-of-life care consistent with their wishes.” While 95% of non-Hispanic whites receive care consistent with their wishes, only 82% of Asian/Pacific Islanders experience this benefit because their culture’s end-of-life traditions differ from mainstream America’s.⁴ When physicians repeatedly ignore the requests of these racial minorities, the population begins to expect this cultural insensitivity and acquires distrust of the U.S. health care delivery system, which further diminishes the quality of health care the racial minorities receive.

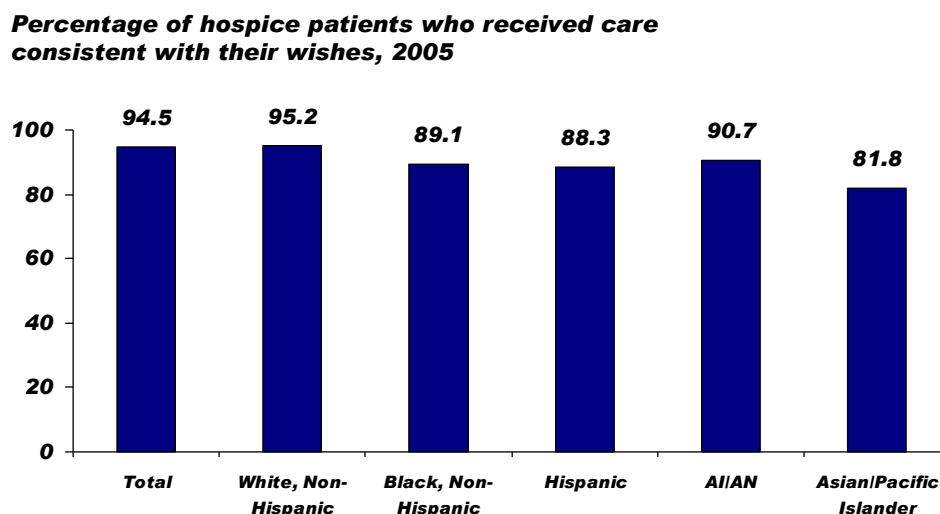
Figure 1. Patient-centeredness: Asians and Hispanics are less likely to understand their doctor and less likely to feel their doctor listened to them than blacks and whites. *Note: Population includes adults with health care visits in the past two years.*



Reprinted from “Racial and Ethnic Disparities in U.S. Health Care: A Chartbook,”
Chart 6-24, The Commonwealth Fund, March 2008: 89. Data from The Commonwealth
Fund. Health Care Quality Survey, 2001.

⁴ Traditionally, if a patient is terminally sick and only surviving off machines, the physician will inform the family and allow them to say goodbye before unhooking the patient from the machines. A cultural difference from this mainstream American ritual is in the traditional Hmong desire to die at home. This request causes conflict with culturally insensitive physicians. Moreover, the Hmong believe that discussing death will provoke evil spirits that will cause the patient to die earlier. A culturally illiterate physician may severely offend and accidentally cause a pre-mature death in the Hmong perspective, inducing further distrust of the U.S. health care delivery system by the Hmong population. A patient-centered physician educated about various cultures will be able to better respect the Hmong culture. Note: the reference to mainstream American culture implies that American culture is that of the white majority population (Gerdner, 2010).

Figure 2. Patient-centeredness: Asian or Pacific Islander hospice patients are least likely to receive end-of-life care consistent with their wishes. *AI/AN = American Indian/Alaska Native*



Reprinted from “Racial and Ethnic Disparities in U.S. Health Care: A Chartbook,” Chart 6-27, The Commonwealth Fund, March 2008: 92. Data from the Agency for Healthcare Research and Quality. *National Healthcare Disparities Report*. 2006.

The racial disparities in health care quality resulting from cultural incompetency and insensitivity lead to racial disparities in the general health outcomes of the patients. Figure 3 cites an example of racial disparities in health outcomes, citing that, “Minority groups (except Asians) are more likely than whites to report their health status as fair or poor.” The data indicates that only 11% of white people report fair or poor health, compared to 20% of black people. The reports of poor health status by minorities describe a downstream effect rooted in the racial disparities evident in the health care experience as linked to the negative effects of a weak patient-physician relationship. The negative effects of patient-physician disconnect impact patients on a psychosocial level (Kiecolt-Glaser et al., 1984, and Gehlert, 2008). The cultural neglect and social isolation experienced by many minority patients through cultural barriers cause significant psychological stress. This stress results in a continuous release of stress hormones that disrupts immune and cardiovascular functions.⁵ The chronic release of stress hormones overloads the system and diminishes the overall health of racial minorities. In contrast, white patients do not experience this cultural incompetency because physicians generally reflect the values and attitudes expressed by a majority of white people, contributing to the racial disparities in health outcomes (Gehlert, 2008).

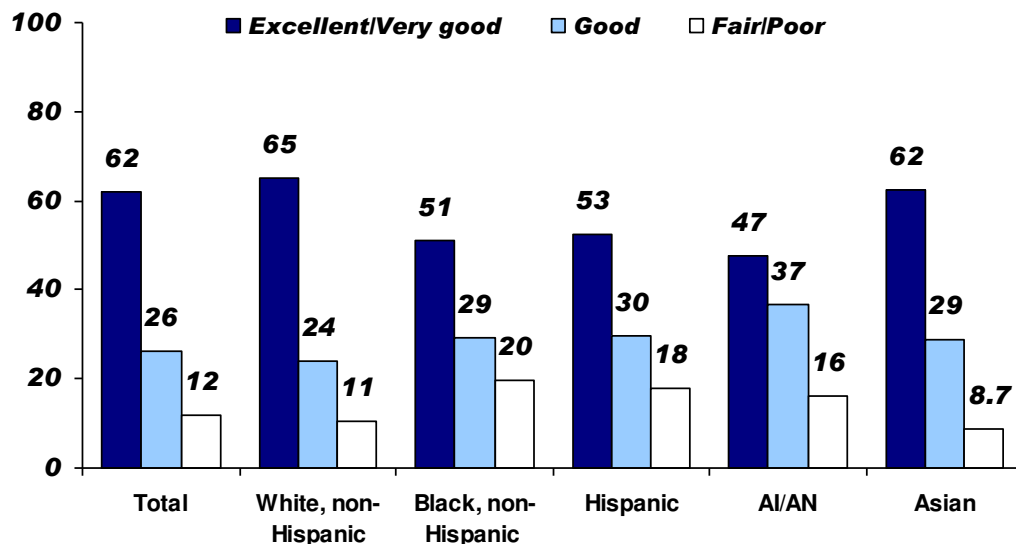
The hypothesis behind the revised MCAT suggests that the new exam will improve the cultural competency of physicians by identifying students who show the highest holistic proficiency in the natural sciences, social sciences, and cultural studies, to medical school

⁵ However, the short-term release of stress hormones is actually beneficial for one’s health. The name of this short-term complex stress response is allostasis. (Gehlert, 2008).

admissions officers. In the past, medical schools did not require students to demonstrate a basic understanding of the behavioral, psychological, and social sciences, so it is not known whether medical school students held this proficiency. The examinees simply had to display an aptitude in the natural sciences, such as biology and chemistry, which would not detect their understanding of individual, societal, and cultural influences on health (Kaplan, 2012). With a diverse educational foundation, students will more likely absorb the complex lessons required to overcome cultural barriers and adjust medical care to unique patient needs. The change to the MCAT stresses the behavioral influence of the provider on patients as a determinant of health outcomes and, thus, recognizes that physicians should be able to “base decisions on analysis of evidence, logic, and *ethics*” (Ananth, and Jonas, 2013, and Schneider, 2012). Basing medical decisions on these three principles will ensure an effective medical treatment, while respecting the individual’s cultural needs.

Figure 3. Minority groups (except Asians) are more likely than whites to report their health status as fair or poor. *AI/AN = American Indian/Alaska Native. Note: Data are age adjusted.*

Percentage of adults age 18 and over, 2005



Reprinted from “Racial and Ethnic Disparities in U.S. Health Care: A Chartbook,” Chart 3-1, The Commonwealth Fund, March 2008: 24. Data from the National Center for Health Statistics. National Health Interview Survey. 2005.

As the new MCAT selects for increased cultural competency of future physicians, the physicians will be expected to have the experience necessary to navigate cultural barriers to provide effective and sensitive treatment to their patients, stronger therapeutic relationships, and increased compliance with medical care. Ideally, this will result in improved health care

outcomes for all races.⁶ Studies indicate that respecting a patient’s “cultural practices, products, philosophies, or environments” leads to positive health outcomes in racial minorities due to the greater culturally sensitive treatment by the providers (Chin et al., 2007). Figure 4 clearly illustrates the linear relationship linking the quality of patient-physician communication to better health outcomes: communication leads to patient satisfaction, which leads to the patient’s adherence to treatment, which, ultimately, results in positive health outcomes. Furthermore, the article “Cultural Competence: A Systematic Review of Health Care Provider Education Interventions” confirms the validity of three studies showing the effectiveness of cultural competence training and strong patient-physician relationships on positive patient health outcomes (Beacher et al., 2005, and Hojat, 2011). If the MCAT revisions prove effective at requiring students to understand social behavior and cultural traditions, the new 2015 examinees and their predecessors will maintain and develop their skills at providing patient-centered and culturally sensitive care, resulting in the reduction of racial disparities in health care outcomes.

Figure 4. Linking Communication to Health Outcomes



Reprinted from “Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health and Health Care,” Figure, *Public Health Reports* 118, July-August 2003: 297.

While existing evidence supports the potential for the new 2015 MCAT to reduce racial health and health care disparities, the hypothesis requires proof through a focused longitudinal study that demonstrates improved health care outcomes among racial minorities after the anticipated culturally literate individuals have graduated from school and settled into practices. Evidence can be gathered by comparing the performance of medical school admissions before and after the 2015 MCAT re-design according to various measures to assess physician-patient communication, physician empathy, and patient compliance to simple treatment protocols.^{7,8} These evaluations could begin even when the subjects are still in medical school to obtain

⁶ A patient’s increased compliance with medical care includes keeping appointments, taking prescriptions, returning for check-ups, etc.

⁷ Examples of a patient complying with simple treatment protocols of physicians include the patient making appointments and following vaccination schedules.

⁸ Researchers can rank physician empathy by using the Jefferson Scale of Empathy (JSE) used in a 2009 study of the effects of physicians with different empathy scores on patient health outcomes. The JSE requires the physician to answer twenty items on a seven-point scale, where seven is strongly agree and one is strongly disagree. (Hojat, 2011)

preliminary studies of changes in student empathy and cultural literacy. These early evaluations may be necessary to enact further modifications on the MCAT to achieve the ultimate goal of improving the health care of vulnerable populations. Definitive results may take years to obtain, as the medical students will need to be far into their medical careers before researchers can acquire conclusive results. Once sufficient data exists, researchers can determine whether the 2015 MCAT revisions achieved the initial goals to decrease the racial disparities in health care.

DISCUSSION

The 2015 MCAT exemplifies an upstream intervention aimed at remediating racial health and health care disparities. The revisions are based on the hypotheses of the MCAT developers that through its incorporation of psychological, social, and behavioral sciences, the MCAT will select and develop culturally competent undergraduates that display the potential to be empathetic, patient-centered, and culturally literate physicians. This hypothesis assumes further cultivation of these traits through the students' medical educations, residencies, and careers. Their hypotheses further assert that increased cultural competency in physicians will improve the health outcomes of all patients—no matter what their race—by better addressing cultural barriers and recognizing cultural differences.⁹ Reduced racial disparities in health outcomes should lead to decreased racial disparities in overall health and health care. Although the primary results of a longitudinal study will not be accessible until the 2015 examinees are well into their medical careers, preliminary assessments of student empathy and cultural literacy once the redesigned exam has been administered will guide further revisions of the MCAT. These revisions will hopefully enable the new exam to achieve its ultimate goal of reducing racial health and health care disparities, thus, improving the health of the entire populace.¹⁰

REFERENCES

- Ananth, S., & Jonas, W. (2013). Patient-Centeredness and Caring in Medical Education. *Explore: The Journal of Science and Healing* 9(11), 116. doi:10.1016/j.explore.2012.12.011
- Beacher, M.C., Price, E.G., Gary, T.L., Robinson, K.A., Gozu, A., Palacio, A., Smarth, C., Jenckes, M.W., Feuerstein, C., Bass, E.B., Powe, N.R., & Cooper, L.A. (2005). Cultural Competence: A Systematic Review of Health Care Provider Educational Interventions. *Medical Care* 43(4), 356-373.
- Betancourt, J.R., Green, A.R., Carrillo, J.E., & Ananeh-Firempong O. II. (2003). Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health and Health Care. *Public Health Reports* 118, 293-302.
- Chin, M.H., Walters, A.E., Cook, S.C., & Huang, E.S. (2007). Interventions to Reduce Racial and Ethnic Disparities in Health Care. *Medical Care Research and Review* 64(5), 15. doi:10.1177/1077558707305413

⁹ These cultural differences include the aforementioned language barriers and cultural insensitivity, such as the frequent Asian and Pacific Islander complaints that they do not receive their desired end-of-life care.

¹⁰ Note: During the research process, no evidence of the effects of revisions on similar admissions exams, such as the LSAT or ACT, arose. Evidentially, the analysis of exam revision outcomes offers a new field of study for social scientists.

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- Gehlert, S., Sohmer, D., Sacks, T., Mininger, C., McClintock, M., & Olopade, O. (2008). Targeting Health Disparities: A Model Linking Upstream Determinants to Downstream Interventions. *Health Affairs (Millwood)* 27(2), 339-349. doi:10.1377/hlthaff.27.2.339.
- Gerdner, L.A. (2010). Health and Health Care of Hmong American Older Adults. *Stanford School of Medicine: eCampus Geriatrics*.
- Hojat, M., Louis, D.Z., Markham, F.W., Wender, R., Rabinowitz, C., & Gonnella, J.S. (2011). Physicians' Empathy and Clinical Outcomes for Diabetic Patients. *Academic Medicine* 86(3), 359. doi:10.1097/ACM.0b013e3182086fe1.
- Kaplan, R.M., Jason M.S., & Kington, R.S. (2012). Building a Better Physician: The Case for the New MCAT. *The New England Journal of Medicine* 366(14), 1267. doi:10.1056/NEJMp1113274.
- Kiecolt-Glaser J.K., Ricker, D., George, J., Messick, G., Speicher, C.E., Garner, W., & Glaser, R. (1984). Urinary Cortisol Levels, Cellular Immunocompetency, and Loneliness in Psychiatric Inpatients. *Psychosomatic Medicine: Journal of Biobehavioral Medicine* 46(1), 20.
- Mead, H., Cartwright-Smith, L., Jones, K., Ramos, C., Woods, K., & Siegel, B. (2008). Racial and Ethnic Disparities in U.S. Health Care: A Chartbook. Washington, D.C.: The Commonwealth Fund.
- Robert Wood Johnson Foundation. (2012, October). Reform in Action: Equity in the Context of Health Reform [Website]. Retrieved from http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf402390
- Robeznieks, A. (2012). Humanizing the MCAT. *Modern Healthcare* 41(47), 32-33.
- Schneider, C.G. (2012). Scientific Thinking, Integrative Reasoning Skills, and the New MCAT. *Peer Review* 14(4), 5.
- Shi, L., & Stevens, G. D. (2005). *Vulnerable populations in the United States*. San Francisco, CA: Jossey-Bass.
- Wolfe, A. (2001). Institute Of Medicine Report: Crossing The Quality Chasm: A New Health Care System For The 21st Century. *Policy, Politics, & Nursing Practice* 2(3), 234. doi:10.1177/152715440100200312.