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Invited Commentary

Through another lens: the humanities and social sciences in the making of physicians.

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As physicians and health systems remain vigilantly focused on improving health outcomes, sometimes the most effective answers are the simplest ones: open communication, trust, and compassionate care. Furthermore, patients also have an expectation of creating trusting and therapeutic relationships with their health care providers. As the association between effective patient-doctor and improved patient satisfaction and health outcomes has become clearer,<sup>1,2</sup> it is imperative for medical educators to continue to examine how, exactly, some clinicians thrive in this arena and what the most effective means may be to teach these skills.

In the attempt to advance healing relationships, medical education has become more understanding that medical care involves attending to both the experiential and emotional, as well as the physical, needs of patients--approaches which have been articulated by such thinkers as George Engel<sup>3</sup> and Arthur Kleinman.<sup>4</sup> However, these existential reflections on life, health, and illness do not occur solely within patients, but also within and among physicians themselves, who tap into their own educational and life experiences in developing an ability to connect with patients.

We and others have suggested that careful engagement of literature, narratives, creative art, theater, and other areas in the humanities in undergraduate medical education may enhance empathy and perspective-taking as well as an openness to "otherness" while stimulating reflection on self, others and the world.<sup>5-7</sup> Through education in the humanities and social sciences, future health care providers may acquire "cultural capital" that can be applied effectively to future clinical relationships.

Therefore, it would make sense that medical students with an educational background already firmly grounded in the humanities would come to medicine

possessing unique skills applicable to medical care including deeper critical reflection on existential questions, assumptions, biases and societal conditions. Enhanced skill in these areas, it would follow, may also then allow for a deeper and more humanistic clinical practice.

In this edition of *Medical Education*, Hirshfield and colleagues investigate whether students who come to medical education with an educational background based in the humanities or social sciences may have unique advantages in their abilities to doctor (**HIRSHFIELD REFERENCE HERE**). Through a retrospective analysis, they report that students with such educational backgrounds score higher in the more subjective assessments included on the Graduation Competency Exam Standardized Patient Encounter (CIS) scores than peers with more traditional natural science backgrounds, while scoring similarly to these peers on the more traditional objectively scored aptitude tests such as the USMLE Step 1 and Step 2. This study provides some food for thought in who is most desirable among the applicant pool and whether recruiting students with backgrounds steeped in the humanities and social sciences may, in fact, bring to the table communication skills that subsequently could be strengthened during their medical education instead of focusing curricular time on developing a humanistic “baseline.”

It is important in this context to also note that within the present analysis, the cohort with a nontraditional educational background also showed a statistically significant difference in age, averaging 1.3 years older compared to peers who had majored in science ( $p < 0.001$ ). [**HIRSHFIELD REFERENCE HERE**] It is possible then that students entering medical school at a later age, regardless of undergraduate focus, have had more time to encounter diverse life experiences and perspectives which ultimately helped them to deal with the complexity and uncertainty inherent in human interactions.

These findings should extend the discussion within medical education to include a nuanced view that incoming students with diverse backgrounds may provide unique

abilities related to human interaction and communication, and could therefore have an effective skill set necessary to engage patients in a collaborative approach to health improvement through a more humanistic approach to clinical practice.

In summary, this study adds to an important discussion regarding what educational backgrounds lead to the best physicians. Historically, students who displayed significant aptitude in the natural sciences were considered those best prepared for the rigors of a medical education; however, that thinking may be shifting as new emphasis is placed on the importance of problem-solving, self-regulated learning, teamwork, and communication, as well as an ability to provide humanistic person-centered care. As part of this process, it makes sense to consider this diversity--not only in academic background, but also in age, gender, gender identity, race/ethnicity, socioeconomic class and national origin—to enrich dialogue in the learning environment. Finally, within this diverse environment, we should take advantage of the ability of literature, the arts and the social sciences to prompt reflection, encourage engagement with complexity and uncertainty, and critically question taken-for-granted biases and assumptions as a part of learning to working with human beings at their most vulnerable.<sup>8</sup>

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