

Considering ‘Big Questions’ About the Human Being in Medical Education

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Understanding the nature and purpose of the human being has been a fundamental line of inquiry across the ages, with bioscience and religion both offering insights into the most pressing questions of human origin, essence, capacities, and uniqueness. In addressing these questions, the Abrahamic faiths (Judaism, Christianity, and Islam) discuss the genesis of humanity, the nature of the soul, agency, and human specialness in similar ways, while bioscience offers accounts grounded in concepts such as evolution, the mind, and biological determinism. Delving into these ideas provides insights into being human and into different accounts of human experience.

The art of medicine today requires understanding the human being in ways that lie beyond the domain of bioscience. While medicine relies on a naturalistic account of the human – appraising scientific evidence, understanding physiological processes that give rise to pathological conditions, and appreciating the effects of external and internal influences on health and well-being – the practice also recognizes that these aspects do not comprise the totality of human experience. Accordingly, recent decades have demonstrated a transition from the traditional biomedical model – which reduces disease to purely somatic causes – toward a biopsychoso-

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cial approach, which considers the influence of personal, social, temporal, and physical contexts on disease.^{1,2} Even more recently, spirituality is increasingly incorporated, offering a biopsychosocial-spiritual outlook in which each aspect cannot be separated from the whole.³ The development of these expansive medical

models underscores the complexity of factors shaping health and the importance of social, psychological, and spiritual elements in determining well-being.

This evolving holistic approach to medicine benefits not only patients but also physicians, whether currently practicing or in training. The biopsychosocial-spiritual model is being implemented in medical education at a time when increasing use of technology is eroding reminders of humanity in patient encounters. The increasingly technology-driven medical environment has raised questions about what it means to be human through the datafication of patients, for example, which can create a divide between the patient and physician. While these technological enhancements can improve efficiency, they risk estranging a patient from medical professionals, with phy-

sicians already expressing concerns over the potential impact of artificial intelligence on the patient-physician relationship.⁴ For future medical professionals, it is critical to develop insight into how technology is inadvertently estranging physicians from their patients and to emphasize the importance of understanding what it

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means to be human when the human touch has become a rarity. Understanding overarching concepts related to what it means to be human from different vantage points – including the biological and religious – can combat concerning trends in medicine that seem to divorce the person from the patient.

Indeed, medical schools across the US have begun implementing programs to help future physicians learn more about the ways in which spirituality and religion shape patients’ self-understanding and experiences. For example, the “Sacred Sites of Houston” course at the McGovern Medical School at UTHealth Houston exposes students to different faith groups in the Houston metropolitan area, and in Georgia, another program assessed the value of personal faith beliefs for medical students.^{5,6} UChicago Medicine evaluated a novel educational pro-

gram focused on increasing resident knowledge of the interplay between spirituality, religion, and medicine through lecture, small-group discussions, and a panel of religious leaders and found that it improved trainee knowledge, attitudes, and skills in dealing with spirituality and religion in medicine. These programs at the undergraduate and graduate medical education levels demonstrate interest in addressing human beings through a fuller lens to engender more patient-centered and culturally competent care.⁷ Adding to these efforts, our educational venture at the Medical College of Wisconsin (MCW) expanded beyond teaching the tenets of religion and the spiritual dimensions of health to exploring overarching questions about the human being through bioscientific and religious perspectives in an attempt to instill wisdom rooted in an appreciation for intellectual humility and sound epistemology.

More specifically, preclinical medical students at MCW elected to participate in a unique, innovative enrichment seminar series at the intersection of bioscience, theology, and philosophy to broaden their appreciation for the different ways in which fundamental questions about the human being are addressed. The pilot program, spanning four sessions across the school year, consisted of large-group didactic sessions followed by small-group dialogue and explored questions of human origin, nature, fatedness, future, and uniqueness through theological (particularly Abrahamic) and bioscientific accounts. Beyond increasing awareness of accounts regarding these fundamental questions, the program sought to increase interest in work at the bioscience-theology interface and shift attitudes away from the view that inherent conflict exists between religion and science. Accordingly, students completed pre- and post-surveys containing validated scales measuring (a) interest in further study at the intersection of bioscience and religion; (b) intention to pursue a career at this intersection; (c) preparedness to do so; and (d) attitudes concerning compatibility of religion and science. These outcomes were measured using modified items from the educational and career interest scale in science, technology and mathematics (5-point scale; 1=no interest at all, 5=extremely interested);⁸ Career Intentions in Science scale (5-point scale; 1=no interest at all; 5=extremely interested) (Wyer

M, Nassar-McMillan S, Schneider J, Oliver-Hoyo M, unpublished data, 2010), intention to pursue a high-tech career (5-point scale; 1=no intention at all, 5=definitely will do);⁹ and two validated science-religion relationship scales (5-point scale; 1=strongly disagree, 5=strongly agree).^{10,11} Statistical analysis included Wilcoxon signed-rank tests to assess changes after the curriculum.

Our modest evaluation of the curriculum demonstrated student receptivity to the program and its contents, highlighting the importance of bringing such conversations to medical education. Results were positive overall; 35 students across the various sessions demonstrated increased interest in studying epistemology (median score: 3 pre-session vs 4 post-session; $P=.02$) and the philosophy of bioscience (median: 3 vs 5; $P=.03$); obtaining further training at the intersection of bioscience and religion (median: 2 vs 3.5; $P=.048$); preparedness to pursue research (median: 1 vs 2; $P=.02$) and careers at the bioscience–religion interface (median: 1 vs 3; $P=.03$; 1.5 vs 3; $P=.02$); and a decreased perception of irreconcilable conflict between bioscience and religion (median: 2 vs 1; $P=.04$). These data demonstrate that such sessions have the potential to influence how medical students approach their careers. Beyond this quantitative, albeit small-scale, evaluation, the informal feedback from students, educators, and staff was glowing. As one education specialist noted, “These sessions were a huge success! The information... presented made me incredibly uncomfortable – in a good way! Students question(ed) how religion plays into their role and posed questions on how they might move forward when there is tension between their professional and personal identities...Students were incredibly engaged and asking great questions!”

For medical students, these curricular interventions are invaluable for gaining a greater understanding of patients and their worldviews and developing a sense of professional identity. On a practical level, exploring diverse perspectives about the human being, as well as the rationale underlying these views, can assist future physicians in navigating areas of conflict in opinion with patients and identifying areas of overlap and synergy. Such skills are critical when encountering difficult situations regarding pro-

viding value-concordant health care and making health care-related decisions. Additionally, as medical education continues to emphasize ethnic and racial cultural competence, exploring views from different religious perspectives can enhance cultural competence when caring for patients from diverse faith backgrounds. Religion and spirituality are important coping mechanisms in times of illness; thus, knowing how different beliefs are leveraged during challenging times can help physicians connect to their patients more meaningfully.¹² Finally, for future physicians, these sessions can greatly influence professional identity formation, preparing students to face encounters and decisions that require medical skill, tact, and practical wisdom. In their academic careers, these physicians may continue to engage in inquiry in what it means to be human. As medicine becomes more dependent on technology, these innovative seminar series provide a safe space for students to foster collaborative dialogue and reflect on what it means to be human in the context of clinical care and the fact that the human—and humanity—is at the heart of medicine.

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