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Linking the Heart and the Head:
Humanism and Professionalism in Medical Education and Practice

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BACKGROUND: This paper articulates a practical interpretive framework for understanding humanism in medicine through the lens of how it is taught and learned. Beginning with a search for key tensions and relevant insights in the literature on humanism in health professions education, we synthesized a conceptual model designed to foster reflection and action to realize humanistic principles in medical education and practice. The resulting model centers on the interaction between the heart and the head. The heart represents the emotive domains of empathy, compassion, and connectedness. The head represents the cognitive domains of knowledge, attitudes, and beliefs. The cognitive domains often are associated with professionalism, and the emotive domains with humanism, but it is the connection between the two that is vital to humanistic education and practice. The connection between the heart and the head is nurtured by critical reflection and conscious awareness. Four provinces of experience nurture humanism: (1) personal reflection, (2) action, (3) system support, and (4) collective reflection. These domains represent potential levers for developing humanism. Critical reflection and conscious awareness between the heart and head through personal reflection, individual and collective behavior, and supportive systems has potential to foster humanistic development toward healing and health.

Perhaps in response to a sense that health care is increasingly dehumanizing for both its recipients and practitioners, there is growing interest in teaching humanism in medicine.[1] Diverse local programs for teaching humanism through literature, small groups, bedside teaching, mindfulness, and the Gold Foundation's White Coat Ceremony now conducted at the majority of the country's medical schools, are evidence of the felt need to train health care professionals to embrace and embody humanistic characteristics.[3]

Although the health professions literature laments an ongoing erosion of humanism, professionalism, and meaning in medicine, few articles propose practical ways to move forward from our current state. In order to nurture humanistic education and practice, it can be helpful to have a concise conceptual model to serve as a framework for individual and collective reflection and action. In this paper, we present such a model that we hope can be used to interpret and guide clinical and teaching activities to nurture humanistic medical practice.

Methods

We reviewed articles in the medical and health professions education literature centered on the question "How can we understand humanism in medical education through how it is taught?" We searched MEDLINE, ATLA, PsycINFO, ERIC, and Google Scholar for articles relating to professional education and humanism. The PubMed search resulted in 776 citations as of August 21, 2013. ATLA, PsycINFO, and ERIC searches combined garnered 123 results and, after two authors' independent review of Google Scholar results, 133 distinct articles were found. Two of the authors (LM, KS) read all titles and abstracts to make an initial categorization regarding relevancy. This resulted in 146 articles (out of 1,032 totaled from database searches) that sought to define, measure, or develop humanism; elucidate the distinction between humanism and professionalism; or discover humanism's antecedents or impact in medical education and clinical practice.

One author (LM) selected a diverse (country, type of journal, topic) sample of 22 articles from the relevant 146 to pilot the initial coding scheme. Three authors (SL, LM, KS) subsequently reviewed that diverse

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sample of 22 articles and applied and further refined the coding scheme. Two authors (LM, SL) re-applied the revised scheme to the same 22 articles, and discrepancies were resolved by discussion with the third author (KS), and a final coding scheme agreed upon, and applied to the remaining articles. The remaining 124 (146 - 22) were read and coded by two authors with discrepancies resolved by discussion.

Next, we individually and then collectively identified themes from the articles, creating a spreadsheet that depicted each article's contribution to the themes. Based on this literature and informed by our experience as medical educators and clinicians, we experimented with various visual and metaphorical depictions of the themes and their connections. Finally, through further iterative reading, reflection, and discussion, we developed and refined a framework for understanding and fostering humanism in health care. Our aim was to develop a model that reflects the complex processes and catalysts for humanistic practice and education, while also being straightforward enough to be recalled and used in real life.

Results

A Developmental Model of Medical Humanism

The Heart and the Head. The complex literature on medical humanism tells a story of both/and: both the heart and the head,[1,5] both action and reflection,[6,7] individual and community,[5] character and experience,[6] habit of mind[8] and demonstrable behavior.[9,10] Recent literature, particularly medical education literature, increasingly emphasizes medical professionalism as one pathway to humanistic practice.[1,3,11-15] The model that emerged from our reflections on this literature, grounded in our experience as educators and clinicians, centers on the interaction between the heart and the head (Figure 1).

The heart represents the emotive aspects of humanism, manifested as altruism,[6] empathy,[16] compassion,[17] and caring.[18] The heart manifests intuition and the commonality of shared human experience. The heart portion of the model is informed through shared human experience that develops empathy. It can be informed by mindfulness and reflective and spiritual practices and by personal experiences of loving kindness. Heart qualities are the sparks that invigorate humanism.

The head represents the cognitive aspects of humanism related to knowledge, attitudes, and ethics.[19] In medicine, these often are described under the rubric of professionalism and described under the rubrics of ethics and epistemology.[1,3,11] They derive from domains of law and logic and therefore are more easily measured than qualities of the heart.

The model is non-linear and does not require a specific directionality, temporality, or starting point. The model emphasizes the connection between the heart and the head. In the figure, the head is positioned above the heart only to reinforce the anatomic metaphor. For humanistic practice and education, as for sustaining life, both the heart and the head are necessary and complementary, and their connectedness is essential.

Figure 1: The Interactive Heart and Head: Developing Humanism and Professionalism
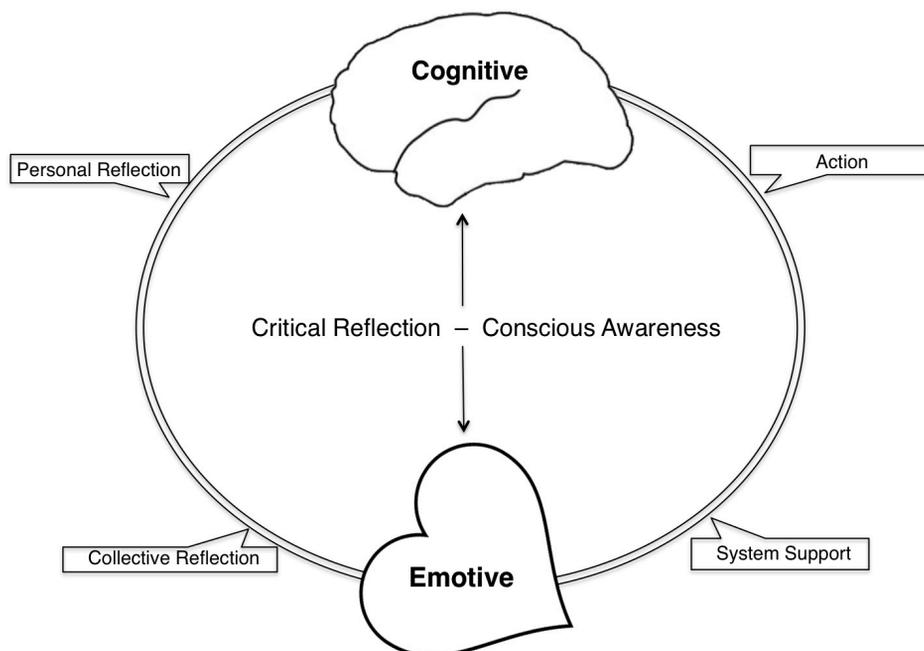
Creating Flow: Critical Reflection and Conscious Awareness. The active, iterative connection between the heart and the head is what makes humanism work in both education and practice.

Two activities, critical reflection and conscious awareness, create bidirectional flow between heart and head that is central to the practice of humanism. Critical reflection involves continuing evaluation of experience.[20-22] Conscious awareness involves openness to learning from experience.[23] Together, these activities help persons to mindfully apply their best selves in human interactions and to develop their humanistic capabilities by learning from their own experience and the experiences of others.[24]

Levers for Development of Humanism in Medicine. The back-and-forth flow between heart and head generates humanistic practice among clinicians and trainees. This flow occurs within a larger landscape of personal and social factors that can affect the flow in a variety of ways. In the outer ring of the figure, the model presents four levers that learners, practitioners, medical educators, and leaders can use to foster humanism: personal reflection, action, collective reflection, and system support. The levers were inspired by Wilbur's four ways of knowing.[25,26] Personal reflection, essential for development as a humanistic physician,[20,23] is an internal process, both rational and intuitive, that involves stepping back from the rush of activities to evaluate information and experience and to be open to learning and development. It is enhanced by, or embodied in, activities such as mindfulness practice.[24,27-30]

Humanistic action develops and sustains relationships and fosters development in others. Individuals' humane caring is demonstrated by specific behaviors such as listening and communicating well, considering the psychological well-being of the patient recognizing the patient's individuality, treating patient and family with respect, showing empathy, and engendering trust.[9] Taking action has consequences and creates reactions in peers, patients, learners. Each small act of kindness can feedback into the cycle of critical reflection-conscious awareness and kindle humanism.

Collective reflection involves shared experience and cultural norms that can either support or thwart humanism. To foster humanism in medicine, this collective space needs to value both the commodities of health care, such as providing evidence-based care of individual diseases, and the relationships that engender understanding of the patient's illness experience,[31-33] allow care to be integrated and personalized,[34-36] and ultimately enable healing.[32,37] Cultural norms that support humanism include institutional culture including group perspective on openness and honest dialogue about current realities, formal and informal curricula, and practice work styles.[3]

System support can reinforce or undermine humanism in medicine. System support may include a wide variety of structural elements—from financial policies and physical plant to the functionality of an electronic health record. All such elements can potentially exert influence on clinicians' ability to develop their head-heart flow.

Each lever exerts its own effect, but it is the levers' collective influence on the flow between the heart and the head that creates the personal, interpersonal, and system environments that foster humanism in education and practice. For example, system support that provides time and values emotional/mental space for collective reflection can encourage and enable individuals' personal reflection, which in turn sustains self-regulated learning and humanistic action among practitioners.

An Illustration of the Model in Clinical and Teaching Practice
The following description of one author's experience (KS)[38] provides an illustration.

In the crowed conference room, I was taking morning report—hearing from the post-call intern about overnight hospital admissions. She finished her list by discussing the case of Mr Jones, a demented and debilitated elderly man who'd been admitted from a nursing home with worsening pneumonia. The assembled residents and students groaned when we learned that Mr Jones' wife had refused a do not resuscitate (DNR) order.

The senior resident puffed up indignantly and quoted the dismal statistics on the likelihood that cardiac resuscitation would be successful in this situation. The intern had quoted the same statistics to Mrs Jones and had pleaded with her by phone the previous evening to allow a DNR order. But Mrs Jones had been adamant that she wanted everything done. She had said she'd be in first thing in the morning to see her husband. As the conference room heated up with everyone's agitation, another intern described her feelings about having gone through the motions of resuscitation recently in a similarly futile situation, saying "It felt like I was abusing a corpse."

The room became silent, and attention turned to me. This was an attending physician responsibility. The person in the longest white coat needed to talk some sense into Mrs Jones and get the DNR order done.

I don't wear a long white coat, but my role was clear. I stood up, and as we strode up the stairs to Mr Jones room, the residents, interns, and students fell in line behind, following a hierarchy of experience. I heard some muttering from the middle of the line, about giving Mrs Jones "what for."

The stairs caused us to slow our pace, and we paused to catch our breath walking down the hall to Mr

Jones' room. You can't give someone "what for" right away after running up six flights of hot hospital stairs. We stood panting at the doorway and watched.

A woman with more white than black in her updo was holding a spoon and gabbing in loud baby talk. "Come on honey. I hear you won't eat for these nice nurses. Don't you want to get better?"

The grin at the other end of her spoon nearly filled the room. The nearly toothless mouth was open wide, pulling in air rapidly, but there was no mistaking the joy in the eyes of the man peering over the nasal cannula bringing bubbling oxygen to his lungs. His grin was reciprocated by a calm glow on the face of the woman with the spoon.

A bunch of sweet nothings went back and forth between the man and the woman, oblivious to the presence of the medical horde in the doorway. She fed him spoonfuls of oatmeal, most of which stayed in. We watched and listened for several minutes. I looked back at the team of trainees. Several sets of eyes were moist.

My loud knock disrupted the scenes on both sides of the door. The intern from the night on call and I sat down and introduced ourselves. We asked about the Jones' life together, and learned about 50 years filled with an equal measure of joys and tragedies—all made meaningful because they were shared with each other. When a series of strokes made a nursing home the only option to care for Mr Jones' daily needs, Mrs Jones visited every day. He'd lived a full life, and they had agreed to a do not resuscitate order.

But previously, when he became more ill, and when he'd had to go to the hospital, Mrs Jones found that a do not resuscitate order was tantamount to a do not care order. Now, she refused to make him DNR, so that people would pay attention to his needs. "He'll eat, and he can sometimes make it to the bathroom, but you have to watch and be patient."

"Would you want your husband to receive electric shocks to his chest if his heart should stop beating?" I asked.

"Of course not."

"How about putting him on a breathing machine, if he should stop breathing on his own?"

"I don't think so. I just want his pneumonia treated. And I want people to pay attention to him—help him to eat and go to the toilet when I'm not here."

"We can do that."

Before rushing off to see our other patients, the medical team listened and talked with Mr Jones' nursing team. Then we found an unused conference room and sat down. I asked the team what lessons we'd learned.

"Slow down."

"Take a moment to let everyone catch their breath."

"Look…"

"And listen."

"When someone is doing something that doesn't seem to make sense, before acting, first seek to understand."

Back then, we didn't know about the Heart and the Head Model. But if we had, we might have considered that we had entered the patient room with our heads full of facts about the success rates of resuscitations in old, debilitated people with an acute illness. If we'd paused for a moment to listen to our hearts, we may have realized that the urgency with which we had approached the situation was driven by the heaviness of previous lived experience—when we'd been forced to make knowingly futile resuscitation attempts because we hadn't pursued the DNR order early enough. No doctor likes to feel that she is "abusing a corpse."

If we'd stepped back from the situation a bit more, we would have realized that in hearing about Mr and Mrs Jones, we each were reflecting on our lived experience, adding our personal narratives to the numbers we shared so readily as the justification for our planned actions. As

we listened to Mrs Jones share her personal reflection, we would have taken heart in validating and supporting each other in our collective reflection. We would have been happy for the system support that gave us the time and autonomy for individual and shared action that showed a different way that became a part of us as learners seeking to be more humanistic in our practice and giving the patients what they needed from clinicians who are not just medical technicians but humanistic healers.[32,37,39,40]

Discussion

This paper provides a model that can be used to promote humanism in medicine. The model is simple enough to be discerned in the head and held in the heart. But from the complexities of interaction among the model's elements emerges the infinitely varied manifestations of humanism in medicine. It is important to reiterate that the use of the head-heart model provides a useful starting place—an illustration that can be easily remembered and sketched out in conversation—but it is not meant to indicate linearity or hierarchy. The essential purpose for the model is to serve as a starting place to advance along the critical reflection-conscious awareness, and to understand how personal and social factors influence those flows.

The model can be used to make sense of systems and of collective and individual action. Such sense-making[41-43] occurs in retrospect, as was the case with the example above, but this retrospective sense-making can be used to foster individual and shared learning to lead proactive development of cultures, systems, and individual humanistic practice.

This work is, of course, limited by the vision and experience of the authors, even as it was informed by an organized, but not exhaustive, appraisal of relevant literature. Our process did involve considerable iteration between literature and

experience, and between individual and collective reflection, that provided a degree of diligence and rigor.

The model can be used to guide efforts to teach and foster humanism in medicine at the individual, group, and system level.

Individuals can use the model to guide their lifelong learning through balancing action[8] and reflection,[7] as they develop both their professionalism[5,12] and their humanism.[1,11] The model can be used to illustrate how mindfulness, reflection and other habits, which have shown some evidence in preventing burnout,[44-46] might exert their benefits on clinicians. The model also provides a broad range of activities to develop self-regulation in this arena, and in that way, might offer a point of entry for nascent and established clinicians for whom traditional notions of mindfulness don't fit well with their self-concept as physicians.

Educators can use the model to assess[9,10,47] and guide interactions with individual learners[48,49] and to establish and refine educational programs that develop humanistic clinicians.[12,20,50] Because the model considers internal/external factors affecting the learner, as well as the system in which he/she is developing a professional identity,[51] the model highlights the role of informal curricula and of possible synergies or conflicts with the formal curriculum. Formal experiences are likely to be most useful when they are both contextual and reinforced by the health care environment. Educators can use the model to demonstrate the focus of any given education activity, eg, teaching techniques of critical reflection (which has been associated with professionalism[52]) or examination of system supports.

Finally, the model can be used by health care systems to develop environments that support humanistic practice,[53] increasing patient-centeredness[54] and relationship-centeredness[55,56] of care. System support may involve creating space for reflection amidst multiple pressures for action, valuing the relationship as well as the commodity aspects of health care and moving beyond metrics of patient satisfaction toward measures that assess humanistic care.[57,58]

In our current era, where disillusionment and disengagement among physicians has reached levels that garner regular media coverage, we hope that critical reflection and conscious awareness that fosters connections between the heart and the head can enliven humanism in medicine and make humanistic education and practice the norm.

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