The Role of Worldviews in Health Disparities Education

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Worldviews are sets of beliefs and assumptions that express how cultures interpret and explain their experience. Worldview has been a useful explanatory construct in the social science literature, but has been used less often in the context of human health. Reducing and ultimately eliminating the negative role that health care providers play in producing health disparities will require a cultural change. Here I posit that "worldview" is a critically important concept for health disparities education that overtime will serve to transform the culture of health care professionals toward a more self-reflective, humble, and open-minded posture.

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Health disparities are a vexing set of public health problems whose determinants are many and whose effects unfold daily in the routine practice of medicine. Beliefs and values of both patients and health care providers contribute to health disparities.[1] Worldviews are sets of beliefs and assumptions that express how cultures interpret and explain their experience. Although essential for humans to make sense of their life, worldviews can nevertheless give rise to bias, stereotypes, and prejudice among health care providers. They can also give rise to conflict in clinical interactions or between patient populations and health systems. Worldviews have a key role to play in health disparities education.

THE MEANING OF WORLDVIEW

The term "worldview" means "philosophy of life that answers all the most fundamental questions of human existence."[2] Worldviews are sets of beliefs and assumptions that are deeply embedded and largely implicit in how cultures interpret and explain their experience. According to Koltko-Rivera et al., "they provide the epistemic and ontological foundations for other beliefs within a belief system."[3] Sjoberg has shown that worldview may influence perception of risk related to genetic engineering and nuclear contamination.[4] A few others have used worldview to explain racial discrimination[5] and health-related behavior.[6–8]

THE IMPORTANCE OF WORLDVIEWS IN HEALTH AND HEALTH DISPARITIES

The Spirit Catches You And You Fall Down: a Hmong Child, Her American Doctors, and the Collision of Two Cultures,[9] is, more precisely understood, a book about the Hmong and biomedical worldviews. It illustrates how worldviews influence care.[9] In this narrative a Hmong family tries to make sense of seizures as they begin to interact with medical professionals. The beliefs, explanations, and interpretative understandings that the patient's family and physicians each bring to the patient's illness radically shape the care. This book illustrates how the richness and complexity of worldviews may practically influence health disparities.

Because a variety of patient-, system-, and provider-level characteristics mediate health disparities,[10] worldview constructs overlap with other social and psychological constructs such as locus of control, determinism, collectivism, etc., each of which may plausibly contribute to health disparities. For instance, if an immigrant population with disproportionate rates of tuberculosis holds beliefs that together suggest all sickness has a supernatural origin (and thus must be addressed through supernatural means), then one might expect that members of that group might experience greater delays in initial diagnosis. Such a worldview paints a holistic and intricate picture of life, including its meaning and significance, that clinicians cannot afford to dismiss and that cannot be easily distilled into individual health beliefs. Unlike isolated health belief constructs, worldviews relate to all of one's life, not necessarily about health specifically. Nevertheless, they may offer a more comprehensive way of conceptualizing why cultures clash in health care because of conflicting interconnected *sets* of assumptions. Challenging as worldviews may be, health professions educators must learn to acknowledge their complexity so that trainees can more effectively communicate with patients and populations who may not share their own worldview.

Worldview is an equally important concept for educating health professionals about their own beliefs and assumptions that may impact the care they deliver. Health care providers play a mediating role in whether or not populations experience health disparities.[1,11,12] One of the great weaknesses of the medical profession is its inability to appreciate and accept that it has a professional culture (and subcultures) replete with its own beliefs and assumptions just like the patients we serve.[13,14]

For instance, it is not hard to imagine how a physician with a very individualistic worldview might hold different assumptions about personal responsibility when conducting risk counseling, medication management, or planning for follow-up visits. World-

views of physicians may also be important in explaining how their beliefs, values, and cultures lead to implicit bias that may mediate adverse health outcomes. Furthermore, since race is primarily a social and cultural construct characterized by sets of beliefs, assumptions, and heritage, worldviews might explain why patients and doctors whose self-described race is the same seem to have higher quality clinical interactions.[12] Thus, worldview as a concept may be especially salient in explaining the mediating role of physician beliefs and assumptions in health disparities.

Some may wonder how "worldview" as a concept may differ from other concepts such as "culture" and the related concept of "cultural competency" used more commonly in health disparities education. Culture includes beliefs (attitudes, values, and norms), practices, and customs of a groups of people.[15] Cultural competency refers to the "capacity to function effectively as an individual and an organization with the context of the cultural beliefs, behaviors, and needs presented by consumers and their communities." Thus, "worldview" relates closely to concepts of "culture" as well as "cultural competency," but focuses in on interrelated beliefs within a culture.

Worldview is a sub-component of culture that pertains specifically to sets of interconnected beliefs, whereas culture can incorporate beliefs, language, and practices. Taken in this sense, worldview highlights the inter-connectedness of many beliefs (not just cataloging them) in the context of a culture . Appreciation of worldview encourages exploration of how those beliefs bring meaning to the day-to-day reality of patients and clinicians alike.

Worldview encourages a broader understanding of and elaborates upon the implicit content of "culture." In the case of the Hmong family, for instance, it is one thing for a health professional to know that a patient or family holds many unfamiliar beliefs; it is another thing to appreciate the mentality and the mindset that those beliefs create. Appreciating worldview brings the learner closer to that mentality. Unlike "culture," "worldview" has been empirically tested as a social science tool, making it an appealing explanatory tool that could be applied to health disparities education.

LINKING HEALTH DISPARITIES EDUCATION AND PROFESSIONALISM: THE ROLE OF WORLDVIEW

If the profession of medicine is to face up to the incredible challenges in addressing health disparities, we must also as a profession face up to elements of the biomedical worldview that allowed implicit bias to fester for all these years. The biomedical worldview, like all worldviews, takes certain beliefs as given and describes a range of solutions. Building worldview consciousness into the culture of the health professions could not just address the implicit bias that permeates medical culture, but it could also facilitate the requisite humility, self-awareness, and respect necessary for concrete behavior change in doctor-patient deliberations. To do so, it would need to engage the diverse moral traditions that give rise to contemporary notions of professionalism and virtues of humility, self-awareness, and respect. Worldview consciousness training would then need to apply those concepts to the contemporary practice of medicine in a diverse world.[16] Furthermore, when systemic bias against a particular patient population occurs within a profession or organization, training in worldview consciousness will help identify and name those problems for what they are as early as possible. Worldview consciousness, therefore, could begin to shape the fundamental ethos of medical practice toward one that is more open to the life experiences of others, more self-reflective about the limitations of one's own knowledge, and ultimately more acknowledging of the diversity of beliefs so prevalent in modern life.

Worldview consciousness will not solve the challenges that real moral and cultural diversity pose, but it may at least help the next generation of physicians in particular to avoid making many of the dangerous implicit assumptions about patients that may belie provider-mediated health disparities today.

WORLDVIEW CONSCIOUSNESS: LINKING WORDS WITH ACTIONS

Worldview as presented here serves as a potentially helpful organizing construct for future empirical testing in medical education interventions. Notably, it applies equally to both the patient and clinician-learner—in a manner that has high face validity for health disparities education and thus can provide an overarching rationale or framework for applying these different learning techniques and concepts of illness in a clinical education curriculum.

Medical school education should begin with a basic introduction to the beliefs, values, and culture of medicine followed by a curricular structure in which students encounter patients' worldviews experientially throughout the course of preclinical and clinical medical education.[14] Likewise, early in medical education, students should participate in frank discussions of the diverse traditions and values upon which professionalism statements and calls for the elimination of health disparities are based.[16] Such an introduction would be a constructive, but self-critical examination of the complex beliefs and assumptions that undergird the biomedical worldview. It would give students the tools to examine what contribution their own culture may play in mediating health disparities.

Here transformative learning theory may be especially promising in implementing such curricula. Transformative learning theory, first espoused by Mezirow, stresses critical reflection, self examination, and engagement of others views.[17,18] By building such skill sets into the curricula of medical education generally, as has been done selectively in end-of-life learning[17] and residency education,[18] worldview education could instill the kind of self-critical skills necessary to foster change in the profession.

How does worldview consciousness relate to the biopsychosocial model of health and notions in adult learning theory used routinely in medical education?[19] The biopsychosocial model posits the importance of biological, psychological, social, and other contextual features of illness.[19] It therefore similarly encourages the learner to explore the patient's mentality regarding their illness. Reflective practice is another adult learning proposed by Schön that posits "reflection in action" in the moment as well as "reflection on action" later.[20,21] Reflective practice could be especially helpful in facilitating a frank assessment of one's own professional assumptions in medical training and practice. Similarly, mindful practice as formulated by Epstein[22] affirms both tacit and explicit awareness as well as propositional, personal, process, and know-how knowledge in the present, and openness to all aspects of experiences as they are happening. Translating the curiosity and openness of worldview consciousness into clinical practice will require

something like "mindful practice." A detailed examination of these theories reaches beyond the scope of this paper. However, each of these theories shares an intention to connect learners more closely to the existential elements of their studies and could play a constructive role in cultivating the kind of worldview consciousness for which I have argued.

By explaining the importance of beliefs and assumptions in human motivation, meaning, and behavior for both patient populations and clinicians, worldview provides an overarching social scientific conceptual backdrop for explaining why making such experiential connections in health disparities education is so critical. Without a full-orbed appreciation of the beliefs and mentality of both patient and clinician cultures, we are unlikely to be able to make the kind of experiential and existential connections to the learning content that adult medical learners require.

Worldviews are integrally related to, but are not synonymous with cultural competency. While the definitions of worldview consciousness and cultural competence overlap, the problem they purport to address, their key attributes, the object of their attention, and their typical evaluation approach may differ (Table 1). Cultural competency, as it is most typically implemented, focuses on insensitive, racist, or stereotyped behavior and seeks to influence primarily behaviors as well as knowledge and attitudes. The key attributes of cultural competency training therefore tend to focus on how best to better demonstrate respectful cross-cultural interactions. The patients and their cultures are the object of study, and evaluation of cultural competence might typically involve behavioral assessments such as an objective, structured, clinical exam (OSCE). As important as cultural competency is, it is not sufficient in and of itself to accomplish the hard work of training health professionals to address health disparities. As a set of behavioral skills, cultural competency training too often fails to address trainees' own beliefs, motives, and assumptions that often arise from either their personal background or the insidious effects of the hidden curriculum on professional training that may contribute to disparities.

Training in worldview consciousness should complement and enrich the objectives of cultural competency training by fostering the kind of humility and self-examination necessary for those techniques to take hold in the routine clinical practice of clinicians. Worldview consciousness starts from a different understanding of the fundamental problem of health disparities. In this approach, there is less focus on behavior and more on an inability or unwillingness to appreciate the mentality of others as well as the pervasive influence of one's own professional culture on health. Therefore, worldview training seeks to foster a deeper appreciation of embedded and largely implicit beliefs. The key attributes of this training include practicing curiosity, humility, and self-awareness directed at both patients as well as clinicians, each with their own cultures. An evaluation approach to such training, although not yet developed, might include formative assessments of learner experiences and incorporate narrative to foster the capacity for worldview appreciation.

By making explicit that which is implicit, worldview consciousness training could potentially give students the license to examine their own beliefs and values at the beginning of and periodically throughout their medical school experience. So trained, the health professionals of tomorrow could cultivate the capacity for more self-aware, open, and humble professional sensibilities whose worldview consciousness would inspire and equip them to decrease the impact of health disparities so prevalent today.

Table 1. The Inter-relationship of Cultural Competence and Worldview Consciousness

Characteristics	Cultural competence	Worldview consciousness
The problem	Insensitive, racist, or stereotyped behavior	Inability to appreciate the mentality of others and the pervasive influence of physician culture on health
Definition	Behaviors, knowledge, attitudes, and policies that enable effective cross-cultural work	Training to appreciate deeply embedded and largely implicit beliefs that shape how cultures interpret and explain their experience
Key attributes	Demonstrate knowledge, attitudes, and skills of respectful cross-cultural communication	Practice curiosity, humility, self-awareness
Object of study	Approach of patients and their cultures to health	Approach of patients and their cultures to life; clinicians and their culture; oneself and his/her culture
Evaluation approach	Objective, structured, clinical exam (OSCE) to demonstrate competencies	Developmental, formative, narrative learning experiences to foster appreciation

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