Developing a framework to identify constructs to measure cross-cultural competence in medicine

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Abstract

The medical profession, since the 1980s, has recognized that health beliefs and cultural diversity of patients impact clinical encounters. In addition to cultural diversity, medicine faces competition from complementary and alternative medical providers and must respond to patient advocacy for more relevant and respectful treatment. Medicine, in part, is meeting these challenges through cross-cultural education, the effort to prepare physicians for encounters in which they and their patient have different health beliefs, values, and practices. However, some medical educators are concerned that medicine is not completely and accurately measuring cross-cultural competencies. This exploratory study seeks to identify domains of culture that can be measured and evaluated. Using survey and interview data from a previous study, along with accreditation standards and findings from the literature, this research identified the domains of culture necessary to develop a valid and reliable instrument to evaluate cross-cultural competencies.
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Medicine throughout much of its history has considered the patient – physician relationship important to the effective delivery of health care; however, only since the 1990s has medical schools in a serious way sought to integrate culture into the curriculum. Lum and Korenman (1994) suggested the integration of culture during the 1980s and 1990s was not widespread and cross-cultural education was not effective. Lum and Korenman based their findings on a 1991 survey study they conducted with all 126 medical schools in the U.S. The survey had a 72% response rate and indicated that 13 schools out of 98 provided independent courses regarding culture and only one program required cross-cultural content (Lum & Korenman).

The efforts to integrate culture during the 1980s and 1990s illustrated how inconsistently medical schools taught cultural content. Early efforts by medical schools to integrate culture into the curriculum were voluntary and predated cross-cultural accreditation standards. For instance, the Accreditation Council for Graduate Medical Education (ACGME), only recently in 2000, required that all resident physicians should possess cross-cultural skills (Brotherton, et al., 2004; Joyner, 2004; Lattore & Lumb, 2005). Although ACGME and other accreditation bodies require cross-cultural competence for resident physicians and medical students, critics have questioned the effectiveness and impact of accreditation on curriculum integration and educational outcomes.

As important as the integration of cross-cultural competence is, accreditation has not fostered a discussion to determine the meaning and nature of culture or the impact that cultural beliefs, values, and practices have on clinical encounters. While many accreditation
requirements are broad and reviewers largely can interpret evidence of success, current standards about culture are highly susceptible to interpretation especially given the vigorous debates in other disciplines, such as the social sciences, over the meaning of culture. Yet, medicine has not made the assessment of culture as prominent as other content domains. Thus, medicine exposes itself to questions as to whether or not medical education is preparing students and resident physicians to be cross-culturally competent.

Objective

One of the possible reasons medicine does not measure cross-cultural competencies pertains to a lack of valid and reliable instruments to assess the skill set (Dogra, 2001; Dogra & Carter-Pokras, 2005; Dogra, et al., 2005; Dogra & Wass, 2006). Admittedly, culture, which underlies cross-cultural competence, is a difficult constructs to define (Atkinson, 2004). Any meaningful measure of cross-cultural competence begins with an understanding of the many ways to frame culture. The social sciences provide a number of ways to frame culture, ranging from essentialist to contextual understandings.

Essentialist understandings propose cultural beliefs, values, and practices describe how one unconsciously views and interprets the world and proposes that group members adhere more or less to cultural traits in unavoidable ways across generations (Engebretson, et al., 2008; Gregg & Saha, 2006; Koehn & Swick, 2006). A number of social scientists have departed from this largely essentialist understanding and have proposed that cultural beliefs, values, and practices are not delineated neatly into race, ethnicity, gender, or social class.

However, they believe that shared beliefs, values, and practices are consciously or unconsciously transmitted from one generation to another, (Atkinson, 2004; Borneman, 2002; Feinberg, 2007; Gregg & Saha, 2006; Helman, 2000; Kleinman, 2004; Sullivan, 2006). Other
notions of culture propose that those with power, authority, or political capital institutionalize groups’ beliefs, values, and practices while discounting or ignoring the impact of resistance (A. Banks, et al.; Billings; Brumann, 1999; Fischer; Narayan).

Contextual understandings of culture challenge the universality of group traits, but do not dismiss necessarily the idea that individuals share beliefs, values, and practices (A. Banks, et al., 1993; Brumann, 1999; Fischer, 1999; Narayan, 1997). Other contextual perspectives focus on the dynamics between and among groups with power and authority and those who resist the hegemony of those with power. This understanding of culture entails members debating among themselves and others what they perceive as universal beliefs, values, and practices (A. Banks, et al.; Fischer; Narayan).

The many different ways of framing culture and the nebulousness of the construct explains why there are few instruments that try to measure the extent to which one is capable of engaging and interacting with patients who have different beliefs, values, and practices. Despite the challenges of defining culture, there are domains and dimensions to the construct that can provide guidance and boundaries for understanding what constitutes cross-cultural competence (Billings, 2007; Boggs, 2004; Brumann, 2002; Fischer, 1999). The objective of this study is to identify the domains of culture that are relevant for constructing a valid and reliable instrument to measure cross-cultural competence in medicine.

If medicine is to make the claim that the profession prepares medical students and resident physicians to treat a culturally diverse population, one way to do so will be via valid and reliable evaluations. This study, expanding upon previous research, enumerated the domains for constructing a cross-cultural competence instrument.
Theoretical Framework

The structure of modern medical education largely is based on the work of Flexner (1910), who proposed that training should be standardized and should consist of the basic sciences and clinical experiences. Flexner (1910), at the start of the twentieth century, believed that a scientific and standardized approach to medical education would result in better health care and would eliminate poorly prepared physicians and charlatans (Starr, 1982). Preceding Flexner’s call for standardized medical education, the American Medical Association pushed the notion of examinations and licensure as necessary criteria for practice, which state legislators supported (Starr, 1982). The aim of these efforts was to convey to the public that physicians educated at one school would provide comparable health care to one educated somewhere else (Ebert, 1992; Flexner, 1910; Mindrum, 2006; Starr, 1982). The message to the public was that they could trust the clinical competencies of physicians.

Measurement and evaluation contributed to the public’s trust in physicians’ competence (Starr, 1982). Accreditation for medical schools and residency programs in many respects provides evidence for the public and the profession that educators are teaching specific content and concepts and learners are acquiring the necessary skills to treat patients. Cross-cultural competence became a required accreditation standard for medical school (Dogra & Wass, 2006) and residency education in 2000 (Dogra, 2007). However, unlike the basic sciences and clinical competencies, medical students and resident physicians seldom are evaluated in a meaningful way on how competent they are to interact with culturally diverse patients. This study is predicated upon medicine’s history of measuring and evaluating competencies of medical students and resident physicians.
Methods

This research used data from a previous study with faculty and resident physicians that examined how the populations define culture, what the construct means to clinical encounters, how medicine educates learners to be cross-culturally competent, and what constitutes the requisite competencies. The population of primary care faculty and resident physicians at one Academic Health Center (AHC) provided the response frame for a study conducted by Gates (2009). Family and community medicine, internal medicine, pediatrics, and obstetrics and gynecology comprise the primary care specialties. The study evaluated the two populations using a close-ended instrument and interviews. The close-ended instrument, derived from Schommer’s valid and reliable epistemological instrument, sought to learn how medical faculty and resident physicians define culture (Gates, 2009). The meaning of culture to the clinical encounter, education, and requisite competencies all emerged from the open-ended interviews (Gates, 2009).

Data from a previous study were used to define the domains relevant for measuring culture. These domains emerged from a factor analysis, the principal component method, for the close-ended items and from a thematic approach to the open-ended data. Using the principal component method, close-ended items explained 66.51% of the variance (Gates, 2009). Cronbach’s alpha for the close-ended cultural items was approximately .55, indicating reasonable stability in how one defines and what one believes about culture (Gates, 2009). The close-ended data learned from faculty and resident physicians were examined, along with findings in the literature, and provided a guide to revise and calibrate the scale. Data from interviews and the themes that emerged from them were further evidence to tease out specific domains of culture and their relevance for medicine.
Data sources

The data for this study came from four sources: a close-ended instrument, interviews, accreditation requirements, and the literature. A closed-ended instrument was administered to 115 faculty and resident physicians and was piloted with 97 physician assistant students at an AHC (Gates, 2009). Demographics for the faculty and resident physicians are shown in Table 1.

Demographics by Population (Gates, 2009).

Table 1. Demographics by Population

<table>
<thead>
<tr>
<th>Citizenship</th>
<th>Faculty</th>
<th>Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>43</td>
<td>45</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>63</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Gender</th>
<th>Faculty</th>
<th>Residents</th>
</tr>
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<tbody>
<tr>
<td>Female</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>Male</td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>63</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Faculty</th>
<th>Residents</th>
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</thead>
<tbody>
<tr>
<td>Arab</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>African-American</td>
<td>–</td>
<td>3</td>
</tr>
<tr>
<td>African-Decent</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>Asian</td>
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<td>5</td>
</tr>
<tr>
<td>Biracial</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>Caucasian</td>
<td>34</td>
<td>43</td>
</tr>
<tr>
<td>Latino/A</td>
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<td>7</td>
</tr>
<tr>
<td>SE Asian</td>
<td>–</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>62</td>
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</table>

<table>
<thead>
<tr>
<th>Social Class</th>
<th>Faculty</th>
<th>Residents</th>
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</thead>
<tbody>
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</tr>
<tr>
<td>Middle</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>Working</td>
<td>4</td>
<td>3</td>
</tr>
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</table>
Eleven in depth interviews were conducted with faculty physicians, who completed the close-ended instrument. The majority of the participants for the interviews were male and born in the U.S. (63.6%), Caucasian (72.7%), and upper class (45.5%) (Gates, 2009). These interviews were intended to learn how faculty would respond to what residents believed. The close-ended data and interviews were evaluated and compared to accreditation standards, competencies, and the literature, including medicine, medical education, anthropology, sociology, psychology, and philosophy.

Results

Faculty and resident physicians overwhelmingly defined culture as shared beliefs, values, and practices that influence and impact how one views others and interacts with the world. Faculty and resident physicians also defined culture in terms of race, ethnicity, and religion, which is consistent with what Betancourt (2004, 2006a, 2006b) and Dogra, Giordano, and France (2007) found in their research. These identifiers for many participants defined culture and delimited boundaries for how individuals interact with and interpret the world. Conversely, there were a few faculty and resident physicians who expressly stated that culture is not defined by identifiers. The two groups seldom mentioned language, gender, and social class as ways to define culture; yet, when participants raised gender, it was often done so by women.

A number of faculty and resident physicians stated that cross-cultural competence is difficult to practice, because oftentimes physicians do not know the groups to which individuals
belong, since one seldom is a member of only one group. Both populations overwhelmingly defined cultural identity as the confluence of multiple group memberships and as a factor that complicates culture and their responsibility to provide health care. However, faculty and resident physicians differed in how complexly they perceived culture.

A number of faculty physicians defined culture holistically as an amalgamation of many factors, such as history and lived experiences. Some faculty physicians expressed that politics, power, and ways in which groups perceive one another influence culture. A few faculty physicians mentioned power when they discussed their relationship with patients. Specifically, these faculty physicians stated that power was relevant to the clinical encounter, because physicians often have greater medical knowledge than many of their patients.

With respect to the relevancy of culture to the clinical encounter, faculty and resident physicians indirectly raised concerns about stereotypes. There were a number of faculty and resident physicians who proposed that the profession should not frame culture in simple and concrete terms that suggest everyone is the same, despite findings from the close-ended instrument that suggests faculty and resident physicians lean toward an essentialist understanding of culture. The analysis of the open-ended responses and interviews reveal that faculty and resident physicians moderate their essentialist understanding of culture by recognizing the importance of context.

Faculty and resident physicians when discussing cross-cultural education overwhelmingly framed competencies in terms of knowledge and attitudes. Knowledge about culture frequently pertained to specific characteristics and traits. The most prevalent attitudes that the two groups discussed were respect for and sensitivity to differences and stereotypes.
Faculty and resident physicians seldom raised the skills domain with respect to how they applied knowledge and attitudes in clinical encounters.

When faculty physicians discussed reasons why medical schools should integrate cross-cultural competencies into the curriculum, their reasons often focused on patient-centered care concepts where the goal was often to increase adherence to treatment recommendations. A number of faculty physicians reflected on how the profession grapples with the extent to which medicine is an art and a science, the extent to which physicians can practice the two simultaneously, and the influence that the two have on cross-cultural education. Nearly all faculty physicians associated culture with the art of medicine; however, specific models like biopsychosocial and patient-centered care most often emerged from the discussions. Faculty physicians who discussed the biopsychosocial model did so in terms of tensions between art and science. Specifically, many faculty physicians proposed that the profession emphasize the biology aspect of the model more than the psychosocial component.

Faculty physicians frequently discussed the science of medicine along with the art of medicine. Faculty physicians who framed medicine in terms of science often contrasted culture with what the profession values most in terms of education and practice, which is science. Many faculty physicians indicated that the profession’s emphasis on science makes the integration of art into medical education difficult, because often there is not much scientific evidence to support the notion that culture matters to clinical encounters or for health outcomes. However, others contested the notion that there is no support that culture is relevant, but no one questioned the importance of evidence.

Faculty physicians also indicated that they teach culture both didactically and experientially; however, most stated that only the basics and foundations of cultural knowledge
are teachable through coursework. Without exception, faculty physicians proposed that much of what residents learn about culture is experiential and informal. Other faculty physicians proposed that medical schools should debrief residents about their clinical encounters.

The analysis of the close-ended, open-ended, and interview data suggests that faculty and resident physicians understand culture and cross-cultural competence in incomplete ways. However, medicine’s understanding of culture, the many ways in which the social sciences frame the construct, and the learning outcomes and competencies required for medical schools and residency programs collectively provide a framework from which to measure completely and accurately cross-cultural competencies.

Conclusions

The collected data identified a number of differences between the literature and what faculty and resident physicians reported. The analysis of the close-ended items, interviews, accreditation requirements, and the literature revealed that many efforts to measure culture and cross-cultural competence are insufficient to evaluate whether or not physicians are prepared to treat patients whose health beliefs, values, and practices are different from theirs. Additionally, the data reveal that the extent to which medicine measures culture and cross-cultural competence is limited to didactics whereas many of the competencies are taught experientially.

The findings indicate that medicine (1) understands culture in limited but nuanced ways, (2) wrestles with how best to integrate the construct into education, and (3) recognizes the relationship between one’s beliefs and unintended consequences. These finding coalesced around broad themes and may indicate the boundaries for measuring and evaluating cross-cultural competence. The domains of culture and competence that emerged from this study
pertained to the nature of culture, philosophical perspectives, complicating aspects, and unintended outcomes.

The nature of culture emerged from how faculty and resident physicians described culture, as well as how the social sciences frame the construct. This domain is comprised of several sub-domains: (1) the certainty and (2) stability of beliefs, values, and practices, and (3) the inherent nature of culture. The nature of culture is primarily concerned with what one fundamentally understands about the construct.

The data for this study revealed that philosophical perspectives strongly influenced what faculty and resident physicians understand about culture. Although the study conducted by Gates (2009) did not inquire explicitly into the philosophy of faculty and resident physicians, their perspectives clearly emerged and both groups implied that one’s beliefs about culture influenced how competent physicians would be. The philosophical perspective domain is subdivided into (1) the nature and meaning of knowledge and learning, (2) the importance of context and location, and (3) the art and science of medicine.

Faculty and resident physicians often discussed factors that complicate culture which can be grouped into (1) factors that influence culture, (2) interconnectedness of factors, and (3) cultural identity. The complicating aspects of culture often led to discussions about unintended consequences. Faculty and resident physicians indicated that incomplete, inaccurate, and problematic views of culture are counterproductive. Unintended consequences are divided into (1) stereotypes and (2) physician paternalism.

Significance

Much of medicine’s history, particularly its rise as a profession, indicates that physicians are adept at guiding public health debates and responding to political and social events (Starr,
1982), such as the changing demographics of the United States population. As the population continues to diversify and groups require medicine to validate their beliefs, values, and practices, the profession will be encumbered to prepare physicians to interact and provide culturally appropriate health care to these patients. Furthermore, some patients will abandon physicians for complementary and alternative providers whom they believe provide health care that is more relevant and consistent with their cultural beliefs (Chin, 2000). Physicians who are cross-culturally competent may be at an advantage for attracting patients, improving clinical encounters, and making relevant treatment recommendations (Fadiman, 1997; Helman, 2000; Kleinman, 1980). Cross-cultural competence may result in improved patient satisfaction and health, which also may lead to an overall healthier population and lower medical expenditures (Betancourt, Green, Carrillo, & Park, 2005).

In addition to the impact on patient outcomes and health statuses, this study has laid the groundwork for medicine to define proactively what cross-cultural competence is and how competencies should be measured. Patient advocacy groups, governments, complementary and alternative medicine providers, and other disciplines, such as anthropology, sociology, and education, are grappling with measuring and assessing cross-cultural competence. This study proposes that medicine should take the lead in defining what and how cross-cultural competencies should be measured and assessed.
References


Joyner, B. D. (2004). An historical review of graduate medical education and a protocol of


