The Challenges Associated with Incorporating Cultural Competence into American Medical Education: Perspectives from the Lehigh Valley

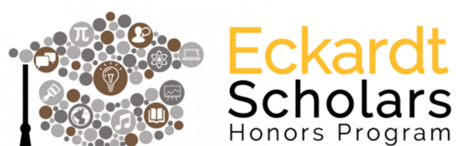

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TABLE OF CONTENTS

Introduction 3

Background and Historical Context 4

Cultural Competence in Medical School Applications 4
The AAMC's Definition of Cultural Competence 4
AAMC Recommendations 6

Cultural Competence in US Medical Education 8
A Proposed Teaching Framework 8
Interprofessional Opportunities for Education 10

Methods 12

Findings 15

Defining and Developing Cultural Competence 15

Teaching and Evaluating Cultural Competence 18

Applying and Evolving Medical Cultural Competence 23

Culturally Competent Medicine in Bethlehem, PA 25
Medical Training at Temple/St. Luke's 28
Addressing "Noncompliance" 31

Discussion 36

Critiques of Medical Training 36

Best Practices for Developing Cultural Competence 38

Limitations and Future Directions 40

Conclusion 43

References 44

INTRODUCTION

Medical treatment demands empathy in all contexts of the word, from the patient's perspective to any member of the medical team on call. The demographic diversity in the United States forces the need for cross-cultural empathy to develop trustful relationships, and the recognition of this need is encompassed in the modern-day understanding of cultural competence. Cultural competence has been considered a pre-medical "Core Competence" by the American Association of Medical Colleges (AAMC) since the revision of the core competencies in 2016. However, from pre-medical candidacy through medical school education, practices for developing interpersonal skills and incorporating the liberal arts into medicine are just emerging to the field, with so few points of reference that it is difficult to evaluate their effectiveness. The lack of guidance from the AAMC with regards to developing cultural competence leads students to view it merely as a box to check off for their applications to medical school, rather than as an essential quality of successful patient-doctor interactions. In a medical landscape that claims to evaluate its applicants "holistically" throughout the education process, it is necessary to hold the system accountable in terms of its evaluation and prioritization of cultural competence. This study analyzes the challenges associated with incorporating cultural competence into the American medical education system. Research on cultural competence in American medicine was assessed, beginning with pre-medical candidacy, continuing through medical education, and ending with its applications in medical practice. A total of 70 interviews were conducted with groups of pre-medical and medical students, faculty at Lehigh University, and medical professionals working within the St. Luke's University Health Network (SLUHN) to develop an informed perspective of the importance of cultural competence in medical practice. Through qualitative data analysis, best practices for developing and applying cultural competence in the US medical field were identified and analyzed such that the medical education system can evolve to best serve the diverse patient populations across the country.

Background and Historical Context

Cultural Competence in Medical School Applications

Cultural competence is presented on the AAMC website as part of the requirements for a competitive American medical school application. However, since the establishment of the "core domains"[1] at the end of the 1990s, a pattern of minimizing and misrepresenting cultural competence throughout medical education has impacted case management for patients within the US who are diverse in elements of race, ethnicity, socioeconomic status, ability, and/or education. Skeptics of the emergent requirement of humanistic qualities for pre-medical candidacy have pointed to flaws in properly defining cultural competence and providing guidance for pre-medical students to develop it. The effect of this skepticism within the American medical education system is a widespread misunderstanding of the meaning and importance of cultural competence in medicine.

The AAMC's Definition of Cultural Competence

American medical school admissions committees make assessments of their applicants based on a tool known as the "15 Core Competencies" (AAMC, 2023). Shown in Table 1, these competencies are categorized based on their representations of interpersonal skills, intrapersonal skills, thinking and reasoning, and scientific knowledge. The goal behind the implementation of these requirements was the acquisition of well-rounded, "holistic" medical school candidates; by the time of application submission, competitive pre-medical students are expected to exhibit satisfactory levels of these competencies and address any shortcomings on their applications. The initiative is co-sponsored by the Accreditation Council of Graduate Medical Education (ACGME), which has implemented a milestone framework for medical institutions to ensure that the competencies are reinforced throughout the medical educational process, through to residency programs.

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[1] The original AAMC core domains (1999) included the following: Patient Care, Medical Knowledge, Professionalism, Interpersonal and Communication Skills, Practice-based Learning and Improvement, and Systems-based Practice. The domains were revised in 2011 and expanded in 2016 to become what is now known as the AAMC's 15 Core Competencies.

Table 1: The 15 Core Competencies

Interpersonal Competencies	Intrapersonal Competencies	Thinking and Reasoning Competencies	Science Competencies
Oral Communication	Capacity for Improvement	Critical Thinking	Living Systems
Cultural Competence	Resilience and Adaptability	Written Communication	Human Behavior
Service Orientation	Reliability and Dependability	Scientific Inquiry	
Social Skills	Ethical Responsibility (to self and others)	Quantitative Reasoning	
Teamwork			

Source: Association of American Medical Colleges (2023)

However, it is notable that the medical admissions process did not always include such an interdisciplinary perspective. In the 1990-1991 cycle, the Medical College Admissions Test (MCAT) underwent a significant change to incorporate verbal and written sections (Engel 2008, 40). These changes thirty years ago comprised the first indication of any preference for a "holistic" medical student. However, it was not until 2015 that a social and behavioral sciences section was added to the MCAT to assess students' understanding of the social determinants of health (Goyal et al. 2020), which speaks to a historic neglect of the systemic forces that affect individual health care. Mary Engel describes the wide range of reactions from AAMC faculty and advisors when the MCAT first announced its transformation. Beginning with her own experience as part of the Health Professional Evaluation Committee at University of Scranton, she described feeling shocked at the lack of humanistic appeal in pre-medical candidates:

> As I worked with science faculty to interview applicants to medical school, I quickly became astonished that these highly ranked students had rarely read any book not required for class and that few of them even read a newspaper. I grew increasingly uncomfortable with the narrow range of interests on the part of many pre-meds, and I found that many students with high grades wrote so poorly that they could not adequately tell their own story in the application narrative known as the 'personal statement.' (Engel 2005, 41)

Engel's description encapsulates what is commonly referred to as the "pre-med syndrome" (Brieger 1999), or the observed inability of pre-medical students to focus on anything that does not prepare them for the scientific rigor of medical school coursework. This highlights the narrow-minded state of the medical school education system of the 20th century and foreshadows the inevitable skepticism by medical school educators when the MCAT announced its changes to include the social and behavioral section. William McGaghie, faculty of the Feinberg School of Medicine of Northwestern University, declared that the new changes to the MCAT allowed admission committees to provide "lip-service" to the newly recognized interpersonal aspects of healthcare, but that high performance in science courses and on the MCAT were the selection criteria that *really* counted in candidacy (Engel 2005, 43). These mixed feelings about the new emphasis on interpersonal competencies are still reflected in the wide interpretations of cultural competence in American medicine today.

AAMC Recommendations

The AAMC website offers specific guidelines for how to fulfill or acquire each Core Competence, with the ideal approach varying per competence. For example, demonstrating the science competencies can be done directly by excelling in a biological research lab at school; the AAMC website points to several articles that offer general advice on how to get involved in these opportunities. Meanwhile, the thinking and reasoning competencies can be achieved through involvement in extracurricular activities, preferably through team leadership. However, when it comes to the interpersonal and intrapersonal competencies, the AAMC asserts that acquisition is an indirect process learned through identity development; elements of daily life including multilingualism or leadership within a heritage group are cited as examples of cultural competence. Notably, the AAMC states the following: "Having childhood experience with poverty or working with medically underserved communities are other valid ways to develop cultural competence" (AAMC, 2023). This suggestion advances the idea that cultural competence cannot be formally taught; rather, students are encouraged to capitalize on any aspects of their early lives that might have exposed them to the struggles of a marginalized community, such that the cultural competence necessary to thrive in these interactions will be developed unconsciously. Under these guidelines, prospective medical school applicants focus primarily on proving their academic aptitude within the scientific knowledge category, usually

by majoring in and excelling within biology-related undergraduate fields[2], and then doing community service and/or medical volunteer work during their free time to fulfill any of the other pre-professional, inter-, and intrapersonal skill specifications. However, these experiences do not always establish an understanding of the importance of cultural competence for physicians (Lasker, 2016). Without a strong foundation in cultural humility[3], medical students are less likely to demonstrate cultural competence with their future patients. It is necessary to formally teach prospective medical school applicants this foundation because an understanding of the human cultural identity will allow for the productive application of experiential learning experience, ultimately allowing physicians to make culturally competent decisions.

There is a detrimental lack of emphasis on cultural awareness in pre-medical candidacy. The root of this problem is that the AAMC fails to foster students' understanding of why cultural competence is important within the diverse US population, amid the perceived American global standing as a hegemon. While the encouraged experiences of local volunteering and heritage involvement may organically develop cultural competence and promote hands-on learning, suggesting exposure to impoverished communities and heritage groups as the primary way of developing cultural competence for medical school oversimplifies the process of learning about cultural competence while also inadvertently tokenizing the experiences of marginalized communities (Lasker, 2016). With no other form of training available for pre-medical students to develop a culturally competent perspective on medicine, the risk arises that educational and emotional labor might fall onto disadvantaged communities to educate the more elite members of their society, thus promoting a social cycle of inequity and discrimination which starts in local communities within the US and then spreads through other underprivileged global societies. Without the proper framework for understanding the reasons for cultural differences, pre-medical students might not adequately develop an understanding of cultural competency to apply in future practice.

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[2] Statistics from the AAMC website show that approximately 59% of medical school applicants from 2021 majored in biological sciences, 9% majored in social sciences, 8% majored in physical sciences, 4% majored in specialized health sciences, 3% majored in humanities, and the remaining students majored in other fields (Jubbal, 2022).

[3] Cultural humility a practice of self-reflection on how one's own background and the background of others impact aspects of daily life (University of Oregon, 2022).

CULTURAL COMPETENCE IN US MEDICAL EDUCATION

First- and second-year medical school coursework focuses almost exclusively on preparing graduates to take the qualifying board exams for medical licensure. These tests, known also as the United States Medical Licensing Examination (USMLE) series, first evaluate the recall of biomedical concepts in the Step 1 exam, which is taken after the first two years of medical school, and later assess the interpersonal aspects of patient care in the Step 2 and 3 exams (Princeton Review 2022). Step 2 is taken after the fourth year of medical school, and Step 3 is taken after the first year of residency; only with a pass in all three Step exams are medical school graduates eligible to apply for a medical license (Princeton Review 2022). Given Step 1's primary focus on biomedical conceptualization, cultural competence development remains in the backseat during the first two years of the medical student learning process. The limited research available on cultural competence in medicine has been carried out by dual degree holders in medicine and the humanities (or humanities experts with studies applied to the medical field) who suggest that formal classroom training is an effective way of developing the holistic understanding required to successfully provide multicultural healthcare. Some examples noted in this section are Joseph Betancourt, MD/MPH; Paul Farmer, MD/PhD; John Hoberman, MD; Iveris Martinez, PhD; and Arthur Kleinman, MD. This discourse analysis reveals that medical school curricula should actively acknowledge the US' history of racism in medicine to assert the importance of culturally competent medical practice.

A PROPOSED TEACHING FRAMEWORK

Dr. Joseph Betancourt (2003) proposes a model for teaching cultural competence throughout the medical education process, beginning with undergraduate coursework. This framework (Table 4) is divided into three conceptual approaches focusing on attitudes, knowledge, and skills. Formal cultural competence training is recommended early in undergraduate education, as pre-medical candidacy begins: At this stage, Betancourt suggests a Multicultural/Categorical approach with the goal of teaching students about social determinants of health and any ethnopharmacological factors that might impact diagnosis. This training sets the groundwork for development of cultural competence in practice as part of the Awareness/Sensitivity and Cross-Cultural approaches in medical school. Together, these three

approaches allow for active awareness to correctly diagnose diverse patients. Notably, under this model, in-field experiences are not suggested until the third or fourth years of medical school, after a foundation of knowledge in social determinants of health has been established. This approach is unique given that the AAMC does not suggest any sort of classroom experience for developing cultural competence. This contrast between Betancourt's mentality and the AAMC guidelines should be addressed to facilitate the understanding of where and how cultural competence fits into the medical education field.

Table 3: Conceptual Approaches to Cross-Cultural Medical Education

Multicultural/Categorical approach (undergraduate education)	**Awareness/Sensitivity approach** (medical school, years 1-2)	**Cross-Cultural approach** (medical school, years 3-4)
Focus on knowledge Teaches methods of assessment Discussion of historical factors and ethnopharmacology that shapes health	Focus on attitude Raises sociocultural awareness Discussion of diversity in patient culture and importance of empathy	Focus on knowledge application Develops skills Discussion of the process of patient illness conceptualization

Source: Betancourt, Joseph R (2003). Cross-cultural Medical Education: Conceptual Approaches and Frameworks for Evaluation. *Academic Medicine* 78(6):p 560-569.

The need for cultural competence in medical school education is especially relevant given the US history of medical racism. As Paul Farmer et. al (2006) ask, "Can we speak of the 'natural history' of any disease without addressing social forces, including racism, pollution, poor housing, and poverty, that shape their course in both individuals and populations?" Without training in how to recognize and address diversity in illness presentation, implicit bias and discrimination against marginalized communities become more likely. In his book *Black and Blue: The Origins and Consequences of Medical Racism*[4], John Hoberman addresses the need to hold physicians accountable in this way, asserting that teaching medical students the history of racial discrimination has never been a priority:

> Medical education has shown little interest in promoting the acquisition of emotional self-knowledge by medical students and doctors, even though the idea

[4] This book is the first systematic description of how doctors think about racial differences, with a focus on how this thought process affects patients in the American healthcare system.

> that medical personnel can benefit from psychotherapy has occasionally appeared in the medical literature since the 1970s. The 'multiple mini interview' procedure for vetting potential medical students demonstrates a new interest in interpersonal skills but does not address race relations. (Hoberman, 2012, 200)

According to Hoberman, cultural competence must be taught as part of a historically informed curriculum, free of the "sanitizing and euphemizing language to describe racial attitudes and race relations" (Hoberman, 2012, 218) that has characterized the standard cultural competence programs in American medical schools. Evidently, formal education regarding the history of racial discrimination in our medical system will allow medical students to understand the power imbalances that arise from cultural incompetence.

However, there are many diverse interpretations of cultural competence in medicine that fail to address our country's prominent history of medical racism. For example, the 2020 *Perceptions of Cultural Competency Among Premedical Undergraduate Students* study by Reety Goyal, Skky Martin, and Dana Garbarski asked a range of pre-medical students to define cultural competence in medicine. Though this study was focused solely on the University of Chicago student body, the student responses were consistent in that they defined cultural competence as a product of understanding "individual attitudes and interaction rather than systemic or structural realities that produce inequalities in health care" (Goyal et al., 2020). This evident dismissal of the history of systemic medical racism in the US reflects the danger of ambiguously defining and unofficially incorporating cultural competence in the medical education system. Any mismatch between the AAMC's recommendations for developing cultural competence and pre-medical students' understanding of how this is applied in practice may be detrimental to the patient care quality of diverse individuals.

Interprofessional Opportunities for Education

Interprofessional connections may assist in the medical education process in cultural competence. This collaboration across academic disciplines will help clearly define the "liberal arts", which in the context of medicine have been used loosely to encompass non-STEM[5]

[5] STEM is the collective of disciplines including Science, Technology, Engineering, and Math (Pennsylvania Department of Education, 2023).

disciplines, leading to a dismissal of their importance along with the important differences that exist between the humanities and social sciences. Iveris Martinez (2015) assesses the opportunity to integrate anthropology in medical education, drawing from her experience developing a curriculum for medical school with focuses in ethics, the social determinants of health, and interprofessional teamwork. Martinez's development of an annual Interprofessional Clinical Workshop allowed students to explore outside the biomedical silos of their education and understand the impact of social issues in medical practice. Part of this approach includes a heavy focus on cultural humility, as Martinez argues that this method teaches students to "ask the right questions for eliciting patient perspectives" (Martinez 2015, 53). This introspection by medical students with regards to their own culture, the culture of medicine, and the impact of cultural difference on patient-doctor communication is immediately relevant and influential in the diagnosis process. Through this experience, Martinez describes the value that she has recognized in forming interprofessional connections between anthropologists and medical students:

> Anthropologists can serve as interlocutors across the health professions. Our knowledge of enculturation, cultural differences, and skills in cross-cultural communication are an asset in this area. As outsiders, we do not have a stake in any one particular profession or discipline and are therefore able to bridge the gap between them. The professionalism of health has led to students from diverse health professions being educated in silos with little if any opportunity to interact, even though they will be expected to work with each other upon graduation. Anthropologists in this scenario can serve as a catalyst for culture change and help develop the structure, process, and outcomes in relation to needs of patients and communities. (Martinez, 2015, 51)

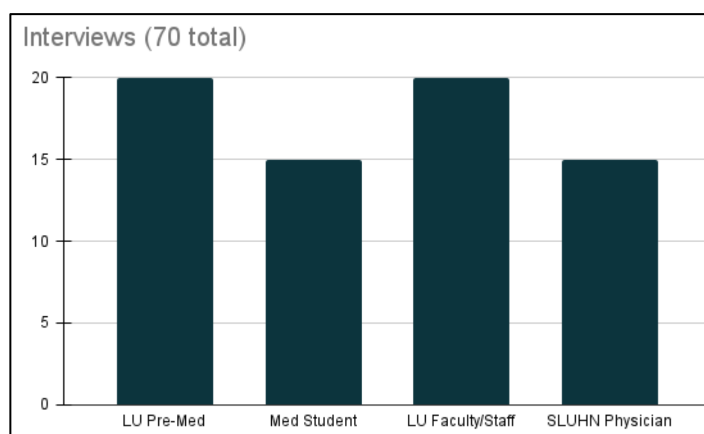
Martinez argues that anthropologists' unique understanding of interpersonal connections complements physicians' knowledge in biomedicine. The anthropological training and perspective of culture helps in the dissemination process of medical information to patients and the public. Anthropologists and clinicians share a common belief in "the primacy of experience" (Kleinman & Benson, 2006, 1674) because members of either discipline dive into the lived experience of patients' illnesses, making attempts to understand how patients understand, feel, and respond to their symptoms. Therefore, culturally competent practices are essential to

maintaining positive and productive relationships between doctors and their patients. Kleinman and Benson note that one major problem with the idea of cultural competence is that it "suggests culture can be reduced to a technical skill for which clinicians can be trained to develop expertise" (Kleinman & Benson, 2006, 1673). Therefore, it is essential for cultural competence to be developed throughout the medical education process and even beforehand, such that a strong understanding of its importance in-practice develops.

METHODS

Qualitative data was collected from a total of 70 interviews (Figure 4), each of which ranged in duration from 15-30 minutes. The interviews were conducted individually with Lehigh University undergraduate pre-medical students and faculty/staff, as well as SLUHN[6] medical students and teaching physicians. The interview groups were chosen based on their potential to provide information about cultural competence in medicine. As the interviews were coded, four main themes came to light: personal cultural journeys and diverse backgrounds, developing cultural competence as an undergraduate, developing cultural competence in medical school, and culturally competent medical practices. The incorporation of the four interview categories allowed for a wide range of perspectives regarding the development of cultural competence through medical education.

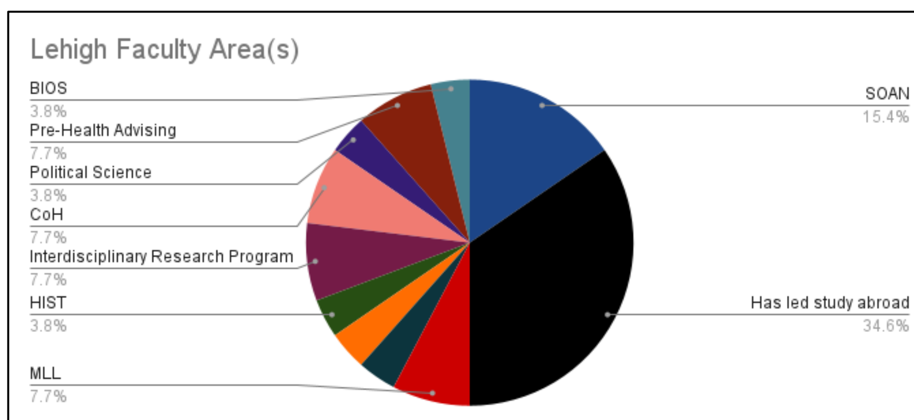
Figure 4: Interview Group Distribution



[6] St. Luke's University Health Network is a non-profit network of 12 hospitals and over 300 outpatient sites. Most interviews with medical students and physicians took place at the Bethlehem headquarters location of the Network.

Interviews with undergraduate pre-medical students contributed to understanding the development of cultural competence through their candidacy for medical school. Questions were geared towards understanding students' personal backgrounds, academic endeavors, and extracurricular activities (including shadowing or other clinical experiences). Lehigh faculty interviewees contributed a complementary perspective, as each of the interviewed faculty were referenced by pre-medical interviewees as contributing role model to their cultural competency, whether through one-on-one advising or teaching formal coursework. While each faculty member had uniquely shaped teaching methods within their disciplines (Figure 5), the most valuable aspect of conversation with the referred faculty was understanding whether incorporation of cultural competency into their course outcomes was purposeful, and if so, what their teaching and evaluation methods were. More than a quarter (Figure 5) of the faculty interviewees also previously led student study abroad programs, making them valuable sources for understanding the effect of experiential learning opportunities for students.

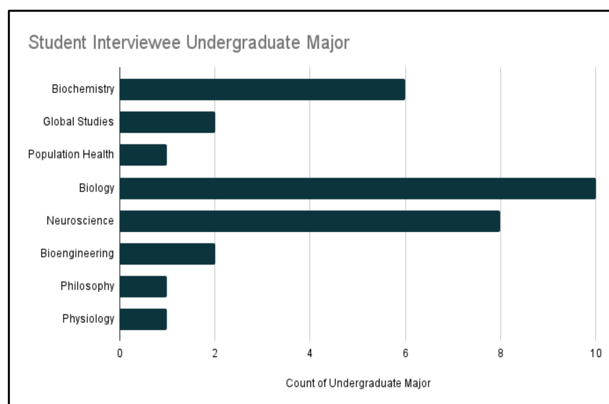
Figure 5: Lehigh Faculty Area(s) of Expertise



The interview groups at SLUHN provided valuable information about the incorporation of cultural competence into the formal medical educational process and the day-to-day lives of healthcare providers. Questions were designed to gauge the effectiveness of the cultural training received in medical school as well as characterize the different ways that cultural competence presents across specialties. With this interview group, it was possible to contrast opinions about the effectiveness of undergraduate learning (see breakdown of undergraduate majors in Figure 6) with the later approaches to cultural competence in medical school. Teaching physicians at SLUHN described the assessment practices for students' cultural competence at St. Luke's

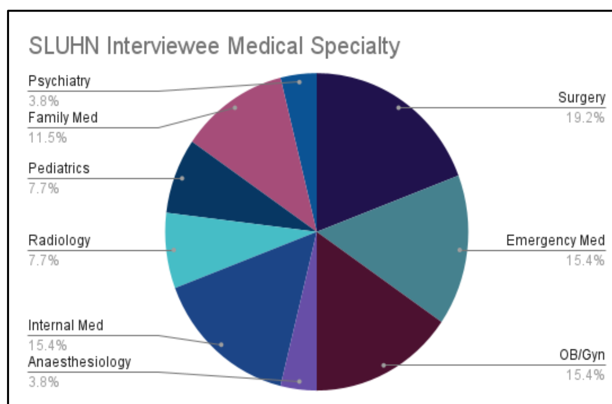
medical school, as well as their individual journeys in choosing their specialties. SLUHN interviewees across different specialties (Figure 7) illustrated the unique applications of cultural competence to distinct areas of medicine while also highlighting the diverse patient demographics in the Lehigh Valley. Therefore, these conversations shed light on how SLUHN has specifically evolved to serve its community.

Figure 6: Student Interviewee Undergraduate Majors



*This bar graph was created using information from interviews with undergraduate students (n=20) or medical students (n=11).

Figure 7: SLUHN Interviewee Medical Specialty



*Note that in making this pie chart, only interviewees who are active physicians (n=15) or medical students that were matched to residency programs (n=4) were considered.

FINDINGS

DEFINING AND DEVELOPING CULTURAL COMPETENCE

Each interview began with an assessment of the interviewee's familiarity with the Core Competencies, evolving slowly into a conversation about the importance of cultural competence in medicine. An early observation was the complex diversity in student, professor, and physician identities. Each interviewee came in with a different perception of cultural competence, shaped by their unique life experiences and career paths; this affected the direction of each conversation, as the questions were tweaked slightly to meet the interviewees at their levels of understanding of the concept and how it fits into their personal and professional experiences. While everyone's perceptions of cultural competence were unique, the open-minded willingness to learn was consistent across every interview group. The interview data show that this foundation for cultural competence was developed through the process of identity development, both in and out of the classroom. Experiential learning[7] was reported as a best practice for developing cultural competence by almost half of the interviewees (Figure 8), but it was also noted that these opportunities should be combined with formal coursework to be most effective (Figure 9).

Figure 8: Developmental Factors for Cultural Competence

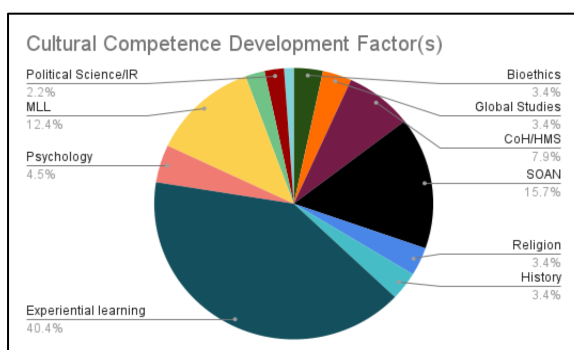
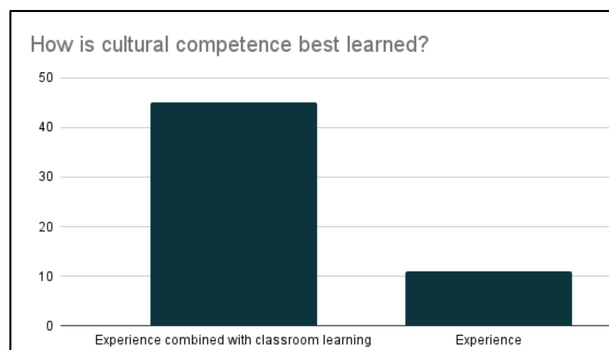


Figure 9: How is cultural competence best learned?



*Note that Figure 8 groups together courses in Health, Medicine, and Society (HMS) with College of Health (CoH) courses. Political science and international Relations (IR) are grouped together as well. SOAN refers to the joint Sociology and Anthropology department.

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[7] The "experiential learning" category includes study abroad experiences, community service, clinical opportunities (employment, shadowing, or volunteering at a hospital/clinic), and learning through one's own diverse identity.

Students cited Sociology and Anthropology (SOAN) coursework as the most prominent formal learning opportunities for cultural competence (15.7%), followed by language studies in the department of Modern Languages and Literatures (MLL, 12.4%) or the health courses in the College of Health (CoH) or the Health, Medicine, and Society (HMS) program (7.9%). SOAN, MLL, and HMS are majors of study offered within the Lehigh University College of Arts and Sciences (CAS). The SOAN department offers courses and research opportunities that develop "self and societal awareness as well as an understanding of what it means to be human" (Lehigh CAS, 2023). The MLL department offers training in eight languages, studies of literature, culture, and film, as well as courses in international communication to encourage study abroad opportunities (Lehigh CAS, 2023). The HMS department offers courses focusing on social scientific and humanistic approaches to health that "aim to cultivate a broad understanding of the effects of health, illness, and medical care on individuals, families, and communities" (Lehigh CAS, 2023); meanwhile, the newly opened Lehigh CoH[8] focuses on studies of population health, community health, and health, innovation, and technology (Lehigh CoH, 2023). Despite the differences between the SOAN, MLL, and HMS departments, as well as the CoH, each of these highly referred areas of study for cultural competence is based on an interdisciplinary approach to learning, which begins with the spirit of open-mindedness.

In discussing the cultural competence development process, cultural relativism and cultural humility were described by professors and students alike as contributing factors to fostering open-mindedness. These two concepts, whether referenced directly or indirectly, helped shed light on the definition of cultural competence. Cultural relativism describes a view of diverse cultures in their own contexts, underscoring the idea that all cultures are unique and can borrow from each other to create a "whole" global society (Pieterse, 1996). This concept is often referenced by anthropologists alongside cultural humility, which is the recognition of the limitations of one's own cultural perspective (Yeager, 2013). The following faculty statements from the SOAN and MLL departments, respectively highlight how cultural relativism and cultural humility help frame the definition of cultural competence:

> Cultural competence is a word that could have a lot of different definitions or meanings depending on what context it's used. My goal in my global health

[8] The first undergraduate class of the Lehigh CoH enrolled in 2020.

> classes is to have students recognize that there are different ways of thinking, knowing, and approaching medicine. Even beliefs about development and capitalism, for example, vary by culture. And we should respect other cultures on their own terms. We can have the silver bullet or the cure for a disease in a different country, but if we don't understand the cultural and social context that we are hoping to apply this intervention in, it'll be useless.
>
> We must be willing to accept that other cultures might know things better, especially about how to do things in their context. Cultural competence is realizing your own weaknesses and being willing to learn about other cultures with an open mind and a real sense of humility. It's one of the reasons we language teachers always want students to go overseas. You come away from those study abroad experiences with such humility and the idea that you have a lot to learn about others.

While SOAN, MLL, and HMS/CoH coursework dominated the formal learning category of developing cultural competence, many students described experiential opportunities such as study abroad or volunteer work in the hospital as effective ways of broadening their cultural lens. Study abroad experiences, work as an emergency medical technician (EMT), or extracurricular clubs were popular points of references for students' cultural competence development. Strikingly, no undergraduate student, medical student, or physician mentioned any STEM coursework when asked what has helped develop their cultural competence. The data from this study reveal a conspicuous lack of focus on cultural competence in traditional STEM coursework; as a result, interviewees consistently mentioned interdisciplinary and interprofessional learning opportunities as contributing factors for their development of this interpersonal quality. Arguably, this cross-disciplinary approach is the most appropriate way to develop cultural competence, as one MLL professor noted: "To truly live in a society in which all cultures are dialoguing in a true way, we have to remove cultural hegemony from the conversation, and this requires an interdisciplinary perspective with deliberate studies in the liberal arts." Conversations with Lehigh faculty revealed that any combination of studies in the liberal arts allow students to analyze the past and present interaction patterns of our society, enriching their cultural perspectives for the future. Studies of International Relations and Political Science inform the worldly prevalence of politically structured hegemony, while MLL

and Global Studies courses expose students to wide ranges of language and literature to enrich their cultural perspectives. Non-interdisciplinary students who focus solely within the STEM departments miss out on this opportunity to engage their minds in critical learning across borders. However, data from this study showed that pre-medical students at all levels of the application process are making the connections between liberal arts and medicine. One sophomore interviewed from the CoH stated:

> I would say that cultural competency is missing from a lot of the pre-med coursework, which is why I switched into the College of Health. I felt like on the Biology track, I was lacking the more interpersonal side of medicine that I want to develop before entering medical school. None of my hard science classes were going to teach me how to talk to people or any of the social determinants of health that I've come to learn through my College of Health classes.

From interviews with Lehigh students and faculty, it became evident that the process of defining and developing cultural competence requires a recognition of the societal, structural aspects of healthcare and how they impact individual-level interactions across unique populations. The truths of medical racism and the importance of its acknowledgement in a formal educational setting come to light, as asserted by Hoberman (2012); therefore, they should become incorporated into an element of history-based medical education. Given the observed "missing" element of cultural competence from traditional pre-medical coursework, it is no wonder that students have taken on interdisciplinary and experiential approaches to developing their cultural competence. While the concept of cultural competence has been broadly defined across disciplines, the essence of an open mind came through in every interview. Therefore, to develop cultural competence in medicine, it is necessary to be humble about one's own cultural limitations as well as cognizant of the differences between unique populations.

Teaching and Evaluating Cultural Competence

According to CAS faculty interviewees, interdisciplinary course learning objectives reinforce the centrality of humility in cultural competence and allow for the application of the concept to specific course material relating to medicine. For example, the illness negotiation

process (Figure 8) was discussed in the anthropology seminar Medical Anthropology[9] after a small lecture segment on cultural relativism to exemplify culturally competent practices. Illness negotiation reconciles patients' understanding of their symptoms with their doctors' professional explanations. In this way, patients' potential for self-advocacy is balanced with physician's biomedical expertise until a diagnosis is reached. As discussed in class, the process in its best-case scenario involves a two-way understanding of the cultural limitations of both the patient and the physician; therefore, it is an essential element of the patient experience, especially when the patient is not from a Western, Educated, Industrialized, Rich, and Democratic (WEIRD) [10] society. Any missteps during illness negotiation speak to the need for cultural competence in medical practice.

Figure 10: Illness Negotiation

Source: *What is illness negotiation?* Think-Pair-Share activity in Lehigh University Medical Anthropology course (Fall 2022)

Themes of cultural competence applied to the illness negotiation process also came through in class readings. For example, the book *Crazy Like Us[11],* authored by the American journalist Ethan Watters, describes the cultural hegemony of American society, and alludes to theories such as cultural hybridization[12], which allows for cultures across the world (usually non-

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[9] The Lehigh Medical Anthropology course was taken in the Fall 2022 semester prior to conducting this study.

[10] WEIRD is an acronym devised by psychologists in the 1990s, used as a standard description for subjects in a multicultural research assessment of mental illness (Henrich et al., 2010)

[11] This book was a required reading in the Fall 2022 Medical Anthropology course at Lehigh University.

[12] This is an allusion to global studies scholar Jan Nederveen Pieterse's paradigm analysis of cultural hybridity in his book *Globalization and Culture* (1995). Cultural hybridity, alongside cultural differentiation and cultural convergence, contribute to understanding globalizing worldly forces.

WEIRD) to adapt to a dominant one (in this case, the US). *Crazy Like Us* encourages readers to consider that many mental illnesses have a social history, not solely a natural one (Watters 2010, 32), and this is evident given the recent rise in global diagnoses of psychological illnesses in the context of political influence by a global hegemon. Regarding anorexia nervosa, Watters asserts:

> Amid all the finger-pointing at diet fads and the influence of Western fashion and pop culture, few considered the possibility that the idea of anorexia nervosa itself—prepackaged in its DSM diagnosis and explained by readily available Western experts—might have been part of the reason the disorder caught on so quickly in Hong Kong. (2010, 48-49)

Culturally competent analyses like Watters' are essential to understand by the physicians of our globalizing world. Without them, the psychological illnesses listed in the Diagnostic Statistics Manual (DSM)[13] might be classified as purely universal, despite the emerging research showing that the Manual's development was skewed heavily towards serving Western populations, without consideration for other cultures (Watters, 2010). It is through class discussions of quotes like this that students gauge a complete perspective of cultural competence. In this case, the concept is exemplified through the borrowing of terminology from International Relations ("political hegemony") and Global Studies ("cultural hybridization"). Because of its ability to stimulate joint disciplinary analysis, cultural competence can be considered a fundamentally interdisciplinary concept. The critical thinking skills developed through a liberal arts education produces more interpersonal (and culturally competent) scholars.

While cultural competence was not a learning objective of every interviewed professor's course, and certainly not always a main goal of each student interviewee's educational experience, open-mindedness was found to be an essential foundation for cultural competence. Professors across the liberal arts disciplines argued in their interviews that an openminded viewpoint is teachable in the classroom[14], despite the clear consensus that the most effective way

[13] The DSM is the standard manual for psychological diagnostics in the United States, historically revised every 5-7 years (Thisle, 2022).

[14] As noted in the Methods section, a large portion of the professor interviewees at Lehigh had previous experience directing study abroad programs for students, so they were familiar with cross-cultural student learning both in the classroom and abroad.

of learning cultural competence was through experiential learning (Figure 8). One professor in the CoH noted,

> Obviously if I want someone to learn Navajo culture, one of the American Indian groups I work with, immersion's the best way. Being on the reservation, in a Navajo community creates the most ideal learning environment. But what I can teach in the classroom is the idea of being a little bit more open-minded, and that's where it all begins.

Teaching methods for the development of an openminded perspective varied by discipline, though most professors reported fostering active engagement through group assignments and writing. Interestingly, of the four professors interviewed from the SOAN department at Lehigh, all cited the use of group assignments to assist with the learning process. This method of exploring the diversity already present in the classroom is an effective pedagogy because it allows students to demonstrate cultural humility by learning and working closely with their classmates. The collaborative mentality fostered through group work encourages more comfortable communication between professor and students, as well as a greater sense of community between classmates. Regarding group assignments, one SOAN professor shared the following: “I do community building in the classroom. We're not all coming in as experts. You have to demonstrate respect for the living and breathing people directly in front of you if you're ever going to demonstrate respect for a stranger from a different background”. Other professors cited building community by frequently using examples from their own research abroad to illustrate the concepts of cultural relativism and cultural humility. Ultimately, it was revealed that the goal of fostering students’ cultural competence in the SOAN department was collective, varying solely in the choice of course materials to teach with. As one professor described, “The anthropologists at Lehigh got together and decided what our shared objectives were going to be. We want an appreciation of cultural diversity, an understanding of cultural relativism, and ethnocentrism to be something that we teach in every course that we offer. We all teach to the same goals but use different illustrations to do so.” Given the number of students that cited SOAN as a major contributing factor to their cultural competence, this departmental teaching approach effectively promotes culturally competent learning and prepares students to balance their personal growth from in-field experiences with academic dexterity in the classroom.

A final element of conversation with Lehigh faculty regarding teaching cultural competence was the evaluation process. Given its complexity and wide range of application to different contexts, cultural competence was described by interviewees as an exceedingly difficult concept to evaluate. As one undergraduate professor described, “It is much easier to determine the presence of cultural *in*competence in a given scenario than to analyze a student’s cultural competence as it stands”. However, in liberal arts education, the evaluations of students’ critical thinking skills form a central part of the curriculum across all disciplines. When asked how they evaluate their students, Lehigh College of Arts and Sciences (CAS) professors cited writing assignments as their most effective tools, despite the emergence of artificial intelligence (AI) technologies that may allow students to cut corners. As one professor from the Religion Studies department shared,

> I gauge student learning by a lot of small writing assignments interspersed with more lengthy papers. I know that with all this new AI stuff, there's a huge question now about writing, but I think it's hard for students to cheat that way in my classes because I make them write so much that I get a sense of their voice. So, if a student is writing weekly papers that are ‘okay’ and then suddenly writes this amazing, perfect paper, I get skeptical… But that rarely happens.

Professors in the liberal arts foster a strong sense of critical analysis, and this was highly valued by student interviewees who referenced courses under this disciplinary umbrella as contributing factors to their cultural competence. By taking on our world’s tensions, including people’s individual commitments to change as well as the structural elements that divide our societies, studies in the CAS both challenge and enrich students’ perspectives at all levels. As one IR professor shared, “I want my students to be critical of all of our systems and think about how their biases can play out in whatever field they end up working in.” This core ability to think outside the box and scrutinize both our individual and world systems is developed on students’ own terms and applied uniquely depending on their future career goals. In the medical field, the diversity in specialty training and patient demographics across the country give way to unique pathways for development of cultural competence; there is no one-size-fits-all technique for doing so. Therefore, interdisciplinary studies through liberal arts education are an effective

way of developing cultural competence, matching the concept in all its complexity and diverse applications.

Applying and Evolving Medical Cultural Competence

Unpacking the complexity of cultural competence was a fundamental aspect of each conversation and served as an important bridge to understanding its applications to medicine. Many student interviewees utilized their personal motivations for studying medicine to explain their perceptions of cultural competence in the field. This trend was observed across all levels of undergraduate education, as the following are quotes from Lehigh freshman and sophomore students, respectively:

> When I think of why I'm pursuing medicine, I think of my identity as a woman and a person of color and then reflect on how I would want to be treated in the doctor's office. So cultural competence applies to my own identity and my motivation to be a doctor at the same time.

> I know that as a Muslim woman I would prefer to see female physicians. So, I guess cultural competency in the context of medicine means having a physician who understands and respects my beliefs.

Given the ways that these intersectional elements of identity shaped students' perceptions of cultural competence in medicine, many interviews shifted from this point to examining the multidimensional elements of being a physician and what motivated students most to pursue the field. Notably, the most complete student responses to the "Why medicine?" question discussed a combination of excitement towards the scientific rigor with a true passion for helping people, as connections were made from biomedicine to academic success, to working with diverse people, and having a strong sense of ethics. For example:

> [Medicine is] a combination of the science and the people that go into it. I have, you know, a love for the biological science, for the chemistry, and all the little parts of the bodily machinery that makes things work, and then also the responses when things are dysfunctional. I really like the nitty gritty from that, going from really small bits of information to the broader picture, and then also seeing how

> healthcare affects populations as a whole or within individual communities. At the same time, along with the science, medicine is a humanistic profession that really requires you to interact with people when they're at their most confused or scared. I really like that aspect of it, being in a position where I can help people feel better and have a positive impact on them.

This quote encompasses all the diverse aspects of the interview responses to the question of why students have chosen to pursue medicine as a career. By listing the scientific rigor, including specific elements of the science that are enjoyable, along with its applications to the body as a whole, the interviewee demonstrates passion for the sciences; simultaneously, the interviewee showed how this scientific curiosity manifests as a genuine desire to help individual people and populations heal. However, this ability to help people goes beyond academic diligence and a desire to make positive impact. Along with the biomedical precision involved in each diagnosis, interpersonal qualities (especially cultural competence) are required to successfully communicate with patients, understand their values, and truly help them feel better. One fourth-year medical student described the profession as "honorable in multiple dimensions", describing a tipping scale where the true purpose of being a doctor shifts from the pursuit of biomedical knowledge to the forging of meaningful connections with patients. This motivation to establish trustful relationships with patients builds upon the openminded perspective that can be developed in an undergraduate education, making medical students respectfully inquisitive of unique perspectives. However, it is not until students are immersed in the field that they can truly understand how to apply their knowledge to the medical field; to do this requires a degree of specificity in cultural competence to the patient demographic of the area, as well as an understanding of how the concept fits uniquely into the specialty of medicine that the physician is in. At this point, cultural competence evolves from a mere *understanding* of diverse perspectives to become a skilled *fluency* that permits successful cross-cultural communication. Developing this complex understanding takes time and continued exposure to the community; as one CAS department chair shared,

> I think cultural competency, if it means a more diverse and nuanced understanding of the world, that's something you can accomplish in an undergraduate education. But actual fluency, cultural fluency, and I don't mean by that just language, but the ability to live

> abroad and understand radically different ways of thinking and living… That that takes time. I just don't honestly believe that one or two classes could possibly open up people's worlds in a sufficient fashion. It's a starting point, but I don't think there's any possible curriculum where with one or two courses, a pre-med student who's never left the United States can suddenly understand the world.

Evidently, there is an important distinction between cultural competence and cultural fluency which highlights the need for community-driven applications of knowledge. Medical doctors should aim to achieve cultural fluency but must begin with fostering cultural competence throughout their undergraduate preparation for medical school. Engaging in interdisciplinary coursework and applying learned terminology to experiential learning will open students' minds to achieving cultural fluency, but medical institutions are pivotal to permitting students to continue this journey. Somewhere along the trajectory to biomedical knowledge, there must be time in medical school for community-based learning; only through this continued exposure can future doctors learn to evolve their cultural competence into cultural fluency and best serve their patient populations.

Culturally Competent Medicine in Bethlehem, PA

Data from SLUHN healthcare providers show that though the concept of cultural competence in medical curricula is new, the importance of cultural competence has been growing perpetually. Learning from patients on the job was revealed as the traditional method of developing cultural competence in medicine, but this did not appropriately address all the diversity (whether in illness presentation across races or ethnic lifestyle differences) in our country. This lack of formal training in cultural competence was reflected in this study as many of the older physician interviewees admitted that they did not receive any form of education regarding cultural competence; instead, they learned from the experiential "trial and error" process in the patient room. The traditionally lackluster incorporation of cultural competence and diversity into medical education mirrors the shift from "authoritarian" to collaborative care described by Kleisinger in his articles. Notably, when asked to reflect on any formal cultural training throughout the medical education process, one physician noted,

> I think it's funny because now it's called cultural competence because in the past it wasn't incorporated into formal education. When I was going through residency, there was some diversity training, but it was really not a focus, it was not a priority. It was more kind of education on how not to offend somebody.

Historically, the American healthcare field has been dominated at all levels of the system by self-identifying White individuals (Figures 11-13), not by the diverse patient demographic that they have been treating. This lack of representation in the medical field underscores the need for culturally competent medicine to address the multifaceted diversity of the patient populations. In Bethlehem, PA, this need is especially evident. According to Deloitte & Datawheel (2021), the 5 largest ethnic groups in Bethlehem are White (Non-Hispanic, 56.1%), White (Hispanic, 16.6%), Black or African American (Non-Hispanic, 8.15%), Other (Hispanic, 6.81%), and Mixed (Hispanic, 5.23%). There is also a wide diversity of Asian and Middle Eastern individuals in the community. Of the total population, 7.6% (over 5,000) of these individuals are uninsured, 20.4% qualify for Medicaid, and 12.2% are on Medicare.

Figure 11: Percentage of Matriculants to US Medical Schools by Race/Ethnicity

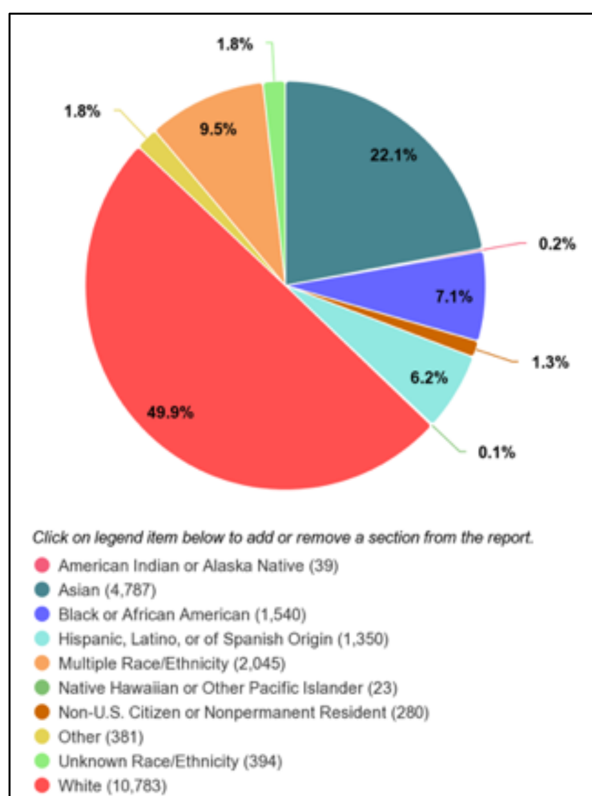


Figure 12: Full-Time Medical Faculty by Race/Ethnicity

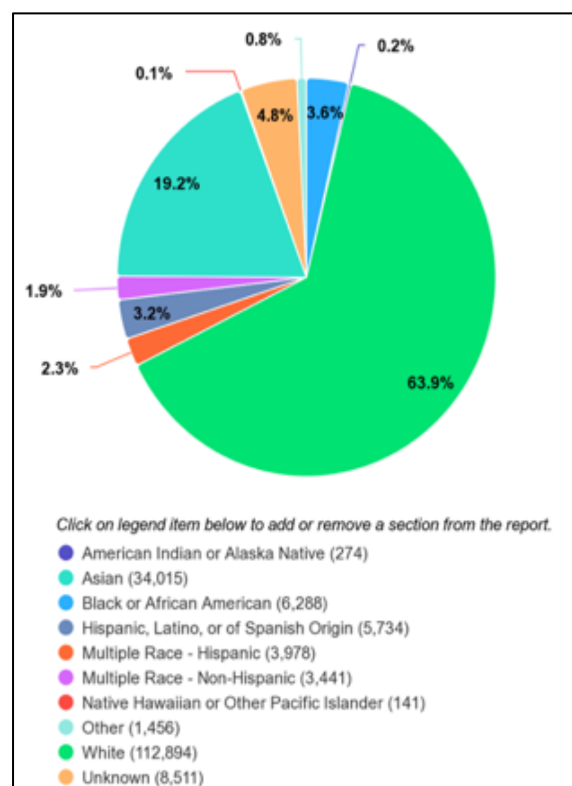
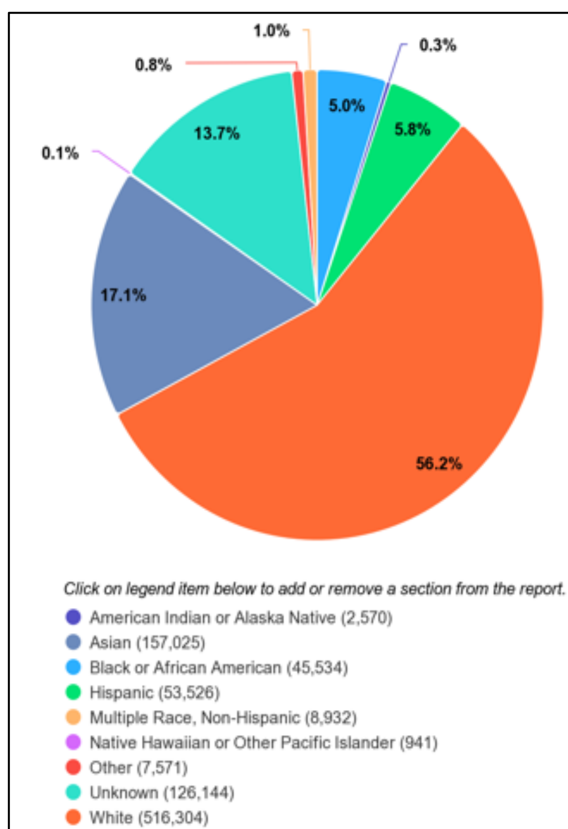


Figure 13: Full-Time Active Physicians by Race/Ethnicity



*Source for Figures 11-13: AAMC (2019). *Diversity in Medicine.*

The Star Community Health network, a federally qualified health center affiliated with SLUHN, has made strides in fostering meaningful trust with the population of underserved and uninsured Bethlehem residents, thus demonstrating the socioeconomic context of cultural competency in the medical field. Interviews with physicians at this community clinic revealed the value of trustful, cross-cultural connections by citing Spanish and Vietnamese radio/television appearances, an effort that was reported by an administrative Star interviewee to have roughly doubled the clinic's services to patients who are undocumented (and thus ineligible for insurance), or who are stuck in the middle of the wage band (making too much money to qualify for Medicaid but still unable to pay for private insurance). By approaching the community with genuine effort to forge mutually respectful relationships with residents, the Star network demonstrates cultural competence in medicine and an open-minded commitment to illness negotiation. Interviews with physicians at the Star Community Health network reinforced the point that any efforts to understand patients' values or develop meaningful relationships with

them informs how to make patients feel better, beyond just making a diagnosis or prescribing medication. In a city as diverse as Bethlehem, asking patients culturally competent questions about their day-to-day lives (including any religious or cultural traditions) is essential to understanding symptom presentations and health outcomes. For example, one family physician described a routine checkup with a patient during Ramadan, the ninth month of the Islamic calendar (History, 2023), which is observed by fasting among other religious traditions:

> I just had a gentleman in the other day, and he was just here for a routine visit, but his blood pressure was so much lower than it normally is, and he was saying that he felt a little bit off. My [Medical Assistant] came in and was like, "He says he's fasting, is he trying to lose weight?" She had no idea that it was Ramadan. And so then I went in and asked the patient whether he observed the tradition. And he said yes. So then we were able to talk about his blood pressure in that context, and I was also able to share back with the staff the cultural context of this month and that we need to be aware of the words we say.

Evidently, the ability to learn from patients day to day is an important aspect of being a culturally competent doctor. The idea that culturally competent medical practices are not solely essential for physicians, but also for any member of the assistive care staff was an unexpected finding, highlighting the need for cultural competence in all elements of the patient care experience. Incorporating training for all members of the patient care team will allow for a continuous flow of information from patient to care team, reducing the risk of lost contextual information for treatment. Formal training at medical institutions will help healthcare workers learn how to best apply their own styles and previous learning to their patients, while also standardizing the expectation that comprehensive questions about patients' lifestyles will be asked. In this way, social determinants of health will be appropriately addressed to provide patients with a quality care experience.

Medical Training at Temple/St. Luke's

Online training modules in cultural competence and bedside manner for staff members were described by administrative personnel at SLUHN and Star community clinic to help familiarize Medical Assistants (MAs), Patient Care Assistants (PCAs), and other workers in the

clinic with the concept. As a precursor to this institution-specific learning, many doctors and medical students shared that there were formal lectures and other training modules throughout their medical education to familiarize them with the importance of being culturally sensitive to patients. Conversations with senior faculty members at the St. Luke's medical school revealed that training at the Temple/St. Luke's medical school proceeds in an additive fashion, ranging from classroom learning to hands-on experiences through all four years of schooling. Role modeling by preceptors (medical school evaluators) and other mentors were equally important aspects of the educational process; in this way, cultural competence at SLUHN manifests as a commitment to continuous education as well as informed recognition of the implicit biases that can exist in diagnostic procedures. As one teaching physician shared regarding cultural competence,

> I think it starts in medical education. What we tell our students is that when they're talking with patients about their illness, asking the patient what they need instead of projecting what we are want for them is important. As medical educators, we should be reminding them to step back and make sure they're asking enough open-ended questions to acknowledge that every patient is coming from a different perspective and place.

Encouragement to ask open-minded questions in the patient room is present through both classroom and in-field learning opportunities at Temple/St. Luke's medical school. A "doctoring" course is offered to first-year medical students to introduce a wide range of topics that address ethnic and racial disparities, LGBTQ+ patients, social determinants of health, among others. Later evaluations at the upperclassman level for bedside manner and diagnostic procedures were common practice with standardized patient actors, who would come in from the community and present with various symptoms and attributes. The standardized patient evaluations were an opportunity for medical students to apply knowledge learned in the "doctoring" course as well as from experience in clinical rotations to approach a range of diverse patients. Over the four years of medical school at Temple/St. Luke's, there is a notable shift from classroom to experiential learning experiences, as one fourth-year student shared:

> I think there's two parts of medical school. The first part is very institutionalized, as there is an overwhelming amount of information that you need to learn in your first two years about the basic sciences, learning to interpret labs, diseases, etcetera. But there's another

> aspect of medical school that I think begins in your third year that's seeing people and seeing the impact of diseases on people. At this point, the sterile knowledge of the classroom is finally translated into working with human beings.

The shift described here from institutionalized to experiential learning in medical school mirrors the curriculum proposal shared by Betancourt (2003). However, one second-year medical student shared that the first half of her learning experience at Temple/St. Luke's was like "trying to drink water out of a fire hydrant", implying that any formal training regarding cultural competence in the first two years of medical school is overshadowed by the amount of biomedical knowledge that must be learned for Step 1 of the USMLE. Other Temple/St. Luke's students shared that the "institutionalized" version of cultural competence had to be greatly adapted in practice to the patient populations that were being served. The idea of restyling formal training indirectly references the development of cultural *fluency*, as the culturally competent baseline for understanding of diversity is transformed into practical skills for illness negotiation. Medical school graduates (resident doctors) at SLUHN shared their experiences in developing cultural fluency, which addressed the need to adjust the formally taught practices to suit their own styles. As one second-year medical resident (PGY2) described,

> In medical school, there are scripts that you rehearse for performing physical exams on patients and they tell you to stick to the template. But once you start practicing, I think you realize the value in code switching and you start speaking in different ways, like some people don't want you to feel so doctor-like, and so you kind of talk to them like a friend depending on the age group or the culture. And then there are certain people who want really big formality, which you learn to adapt as well.

The scripts described by this interviewee are spoken about in the context of the Objective Structured Clinical Examination (OSCE), which is a recommended assessment by the AAMC across American medical schools of students' clinical reasoning and bedside manner. By passing the OSCE, medical students demonstrate their ability to treat a variety of diverse patients (AAMC, 2023), which then translates into their competency evaluations as a resident doctor. Residency programs have differing evaluation methods depending on the specialty and the hospital, but their importance lies in their ability to develop adaptable physicians at the bedside.

At SLUHN, the family medicine residency program uses a “milestone framework” for evaluating the core competencies (including cultural competence). This milestone evaluation technique is unique in its ability to assess the improvement trajectory for the students throughout their educational process by assigning numbers from 1-5 (1 being the average for a first-year resident and 5 being the highest possible ranking score). This allows for a comprehensive understanding of students’ development process for the competencies, leading to more effective advising strategies. For example, one residency director noted regarding evaluations,

> Some of [the residents] don't get to four, some of 'em pass four, you know, everyone's different, but at least we can see a trajectory and that helps us intervene. So, if we see a resident who is not going up in their milestones or sliding back in their milestones, then we plan for them to meet with their advisor and address what they're struggling with.

This prioritization of competence growth at SLUHN prepares students for Step 3 of the USMLE series and builds upon previous learning experiences in medical school to ensure that the graduated physicians demonstrate their highest potential of empathy for their patients. In this way, medical students are expected to uphold high standards of quality care consistently through and after their formal education. This method of competency-based learning allows for medical education to evolve alongside the increasing demands and diversity of the healthcare system, making cultural fluency an achievable goal over the course of physicians’ careers. The trajectory-based competence evaluations also acknowledge that students have varying, uniquely developed degrees of cultural competence; this helps promote a healthy learning environment for medical students, without the merciless risk of being bluntly labeled by preceptors either as competent or *in*competent.

Addressing “Noncompliance”

In illness negotiation, if a patient’s cultural understanding of health/illness clashes with physician’s biomedical training and corresponding diagnosis, an issue of patient “noncompliance” may arise. Patient noncompliance is fully defined in a series of articles authored by internal medicine Dr. Fred Kleisinger, entitled “Understanding Noncompliant Behavior: Definitions and Causes” (2003) and “Working with the Noncompliant Patient” (2010).

In the earlier article, Kleisinger describes his former approach to instances of patient noncompliance: "My solution, therefore, for all noncompliant behavior (NCB) was to repeat—more emphatically—why my recommendations were important and to reiterate my explanations and dire predictions until I felt that the patient could comprehend and would comply" (Kleisinger, 2003). The article series then goes on to reveal the shift from the traditional "doctor knows best" perspective to an attitude of culturally competent collaboration between doctor and patient. In "Working with the Noncompliant Patient" (2010), Kleisinger describes that the "traditional authoritarian approach" to medicine is transforming toward a "collaborative partnership between patient and physician that is based on mutual goals and a shared understanding of problems and their potential solutions" (Kleisinger, 2010). His list of suggestions for physicians to avoid NCB[15] include developing a complete understanding of patient circumstances (i.e., social determinants of health) and their perceptions of doctors overall. Notably, his articles do not mention any use of assistive devices to navigate NCB in the patient room. While this may have been because the technology had not been developed yet, it became evident through conversations with care providers at SLUHN that these devices formed a controversial part of the field.

SLUHN offers many options of accommodative devices to their patients, including amplifiers and telephones compatible with hearing aids, closed caption decoders for televisions, amplified headsets, communication boards, interpretation services, video remote interpretation for American sign language (ASL), and CyraCom language interpretation and translation services. While these technologies are appreciated by patients and physicians alike, their presence runs the risk of replacing physicians' effort to develop culturally competent practices for treating diverse patients. In these cases, the risk of using technology as a fix-all solution is highlighted as cultural fluency is not achieved. SLUHN interviewees shared that their workplace often makes such great use of technology to assist during culturally "complex" patient scenarios that the interpersonal connections between patient and doctor are lost, thus compromising quality of care, and leading to patient NCB. One fourth-year medical student shared,

> I hate translators. I hate those interpretation phones. I think they're very sterile and that they strip all of the joy out of patient interactions. I also think everybody

[15] NCB was defined by Kleisinger (2003) as patients' refusal to heed medical advice.

> leaves feeling slightly off after. But I realize that it's a kind of a necessary stopgap-- It's either that or nothing in many cases.

The underlying issue of NCB is the view of technology by physicians as a replacement for cultural competence, preventing their development of cultural fluency. Interviews with SLUHN physicians and medical students revealed that a two-way, human-to-human communication is essential for establishing meaningful relationships between patient and doctor. Problems with the technology during the illness negotiation process were reported by healthcare workers at all levels of the system as compromising of the quality of care for patients. Miscommunications with the use of these devices are time-consuming and frustrating to reconcile, ultimately illustrating the extent to which technology fails to replicate the human experience. As one PGY2 shared regarding the CyraCom translation phones,

> The problem that I have with [the CyraCom translation phones] is when they mishear you and then you have to repeat things. For any exchange to happen, it has to go through four different people: yourself asking the question, the interpretation asking the question, the patient answering the question, and then the interpreter translating for you. And you know, people don't have the time or the patience for that, and a minimal number of questions get asked by the patient. The visit then gets cut really short, and many times the patient comes back as ‘noncompliant’ because they didn’t fully understand their treatment plan.

Successful cross-cultural communication in patient care can only come after demonstrated motivation by physicians to build upon their cultural competence to develop cultural fluency. A failure to be motivated in this way is a disservice to the diverse perspectives that comprise our country, and a serious limiting factor to the perspective of the physicians. In alignment with this effort to develop cultural fluency and avoid patient NCB, SLUHN physicians cited culturally competent question-asking strategies to help develop relationships with their patients. One physician described cultural competence as a “fundamental ability within healthcare” that bases every element of the patient visit on the communication process. Two examples from different SLUHN family physicians highlight the unique manifestations of cultural competence in the doctor’s office:

> I often use the guise of being the newbie. Like, 'I just moved here a couple months ago, can you tell me about where you go for shopping for this or that?' It opens the door for those informative conversations. Depending what types of markets they might tell you that they shop at, or how far away it is from their home is very helpful to understanding the kind of community they live in. So really your cultural competence, not even from an ethnicity standpoint, but just from the culture of America, is required to adjust based on the community.

> I tell my residents that there is nothing off limits. You can ask anything, at any time to the patient. If it's a sensitive topic, ask it in a sensitive way, but you need to know everything about them. You have to get the dirt, otherwise you'll not get the big picture. I have patients who come from North Hampton County, the prison, and I always ask, like, "What are you in for?"

These two approaches to patients address the perspective that developing a complete and culturally competent understanding of their patients' lives informs physicians about the illness progression as well as any potential for NCB. Asking culturally competent questions also helps ameliorate the power dynamic between physician and patient, encouraging patients to ask questions about their care. When asked directly about the role of cultural competence as a tool, physicians agreed that using culturally competent communication gave way to effective illness negotiation and complete patient understanding of their course of treatment. Given this viewpoint, "noncompliance" is reframed to take the blame off the patients, as one physician described using "non-adherence" as a preferred term:

> I hate the phrase non-compliance 'cause I feel like it sounds like patients do it on purpose when they often do not. Like, why would they keep coming back for follow up if they're not going to do what they need to get better? When dealing with this issue, I reframe and use 'non-adherence' and then always try to find out the 'why'. Is it transportation? Is it access to fresh food? You have to ask those culturally competent questions in order to move forward with your patient.

By describing the culturally competent question-asking process, SLUHN interviewees emphasized the importance of cultural humility and cultural fluency in medicine. In the US, the

diversity of patient demographics (especially in urban areas) requires physicians to empathetically collaborate with their patients. As a result, physicians learn multiple languages, read up on cultural differences, and ask questions of their patients to ensure empathetic understanding. Physicians who take the initiative to create the most comfortable environment for patients adapt to different norms, values, and beliefs so that they can engage with their patients as deeply as possible. This demonstration of cultural humility transforms patient relationships and skyrockets quality of care. As one bilingual SLUHN pediatrician noted,

> Now that I'm at a place where I can speak with the Spanish-speaking patients at a level at which they can understand what their diagnoses and plans of care are, I find that it has revolutionized my relationships. Before, we would have to use a telephone as a translator, and I found that my patients didn't ask as many questions. You know, with that barrier, they kind of just went along with anything I said. But now that we can communicate in the language that they're most comfortable with, I think our relationship and the care I provide is much more expansive.

With references to cultural humility and cultural relativism, interviews at SLUHN revealed that doctors best serve their community by navigating the illness negotiation process with empathy, patience, and open-mindedness towards their patients. The developmental factors for cultural competence vary widely in discipline and application, making the concept difficult to define in practice, but the fundamental idea of collaborative curiosity propels its development forward, until cultural fluency can be achieved. One Lehigh professor who conducts health research abroad noted that she strives to teach in her classes that "the most successful health interventions are those that work directly with and through the community, on their terms." The same is true within the US, as cultural competence must be prioritized at every step of the medical education process to ensure that successful illness negotiation can occur for all patients, regardless of their diversity in background. Despite the growing popularity and emergence of new technological devices to assist with communication barriers, physicians must commit to developing their cultural fluency if they hope to truly advocate for their patients' wellbeing.

Discussion

Critiques of Medical Training

Despite recent efforts to incorporate cultural competence into formal medical training, interviews with medical students revealed mixed reactions to the emerging educational methods for culturally competent learning. The negative reviews of these training methods were partly due to a lack of time, but mostly due to perceived poor value. The lecture-based format of teaching cultural awareness in the Temple/St. Luke's "doctoring" course was widely critiqued as being unhelpful, or only useful to students who had previously applied knowledge through an interdisciplinary undergraduate experience. Though it was agreed that the initiatives for training in cultural competence were well-intentioned, medical students implied in their interviews that these formal methods of training were usually executed poorly. With regards to the Temple/St. Luke's "doctoring" course, one third-year medical student asserted,

> The lectures [in the Temple/St. Luke's 'doctoring' course] tend to be pretty far apart, so there's very little continuity, and half the time, it feels like a waste; these are two to three hours that would've been more usefully spent in the community. A lot of us want to help out and do volunteering, but we just physically don't have the time. Sometimes the community organizations host really great events but guess what? We have that freaking lecture <laugh> that we can't skip, happening at the same time.

This quote highlights the debate of whether experiential opportunities or formal learning processes are most effective for developing cultural competence. While overall data from this study show that experiential learning is only successful following the establishment of a classroom-established culturally competent foundation, some interviewees expressed desires to skip the formalities and go right into the field. However, critiques of the in-field evaluation process for upperclassman medical students were plentiful as well. Medical student interviewees recognized that standardized patient actors were designed to actively prepare them for cross-cultural communication but described that it was often difficult to practice their bedside manner on patient actors who did not possess the diverse traits as claimed. This presented a large barrier in the bedside manner feedback process, as one fourth-year medical student described,

> Standardized patient evaluations are hard because sometimes we have to pretend that the patient has different characteristics than they actually do in real life, so it's hard to actually dive in. Then there are also a lot of barriers in receiving feedback from them because the actors don't actually have the diverse attributes that would impact their patient experience. I don't want a practice patient to just tell me I'm doing everything right, and then end up in a real patient's room one day and do everything wrong.

The fear of ending up in a future patient's room and offending them or misdiagnosing them because of poor cultural competence was a common theme among medical students who described non-diverse individuals presenting as standardized patient actors. Temple/St. Luke's medical students shared that in response to this lack of representation, members of the student body reached out to medical school administration and pushed them to send out the job posting to more areas of the community. This collaborative initiative demonstrates the power of the student collective, and that the most authentic form of cultural fluency comes from involvement with local communities. Notably, this kind of engagement is never stated in any online publications regarding cultural competence in medicine by the AAMC or its associated organizations. Instead, the development process for cultural competence is left up to interpretation, making room for a wide range of methods for formally developing the competence. With such an ambiguous definition of the term and a lack of effective educational opportunities for developing it in medical school, the possibility of developing true cultural fluency in the medical field decreases, ultimately jeopardizing the quality of patient care by the next generation of doctors.

Because there is no one-size-fits all method for developing cultural competence, applications of the practice vary widely by physician. Some doctors mentioned that they took it upon themselves to develop skills in a different language to communicate with a broader range of patients or read books and other literature sources about the diverse presentations of illness across races (addressing the US history of medical racism). At SLUHN, these initiatives have become strategies for community building. For example, the "St. Luke's Diversity Book Club" has been newly established to introduce formal conversations about cultural competence in the

medical field. This is an initiative by Temple/St. Luke's Diversity and Inclusion Taskforce (DIT), which is led by medical school faculty in conjunction with a group of students. Notably, DIT was established in the summer of 2020 after the murder of George Floyd, when a group of medical students pushed to establish an on-campus organization to demonstrate active commitment to principles of diversity, equity, and inclusion. Interviews with medical students at all levels described the impact having a student-led DIT in collaboration with the faculty; as one second year medical student described, "[DIT] really helped get rid of any biases and discrimination I had about medical education. I was very surprised by how diverse and inclusive my medical school is and how they really want what's best for us. We're kind of like a little family."

DIT was also described as a way for students to get involved in the local community. For example, DIT collaborates with Laundry on Linden, a community service program at a laundromat where volunteers do community members' laundry at no cost while medical students and an attending physician offer medical advice and conduct physical exams out of a SLUHN medical van. Members of DIT are also opening a Student-Led Interprofessional Care Center (SLICC), where undergraduate students, nursing students, pharmacy students, and other interprofessional fields will come together to help underserved community members learn more about their health. As evidenced by the dedicated initiatives by the medical student body, positive outcomes stem from community engagement. Incorporating cultural competence into medical education has the potential to broaden perspectives and further motivate students to pursue their medical careers. Despite the fresh recognition of culturally competent medicine, the collaborative student body and administrative faculty at Temple/St. Luke's provide hope for other medical institutions seeking to incorporate cultural competence into their curricula and reframe their mission statements to prioritize broaden their students' perspectives beyond the biomedicine.

Best Practices for Developing Cultural Competence

One of the most striking aspects of the results from this study was the pre-medical students' understanding of the relevance of cultural competence in medicine without yet being in medical school, and sometimes without yet beginning the application process. Undergraduate

students described cultural competence as “a problem in Western medicine, specifically”, “understanding that there are things you will not understand”, and “the willingness to engage with diverse personal backgrounds.” Thus, it was evident that the broad concepts of cultural relativism and cultural humility, as well as the open-minded perspective required to practice culturally competent medicine, were well-established in many pre-medical minds. However, without the consistent prioritization of the concept by administrators of the medical education curriculum, these understandings often go underdeveloped and underprioritized in future practice. While interdisciplinary undergraduate coursework can help lay the foundation for culturally competent dialogue, it is up to medical institutions to apply these practices to medicine and ensure the continuous education of physicians to evolve alongside the increasing demographic diversity within our country.

Undergraduate-level courses in the liberal arts are designed to teach students how to deconstruct concepts of power and multiculturalism through the incorporation of critical reading assignments; the curricula of these courses pay respect to the unique histories and cultural practices across different populations and formally acknowledge the discriminatory history that underlies our country’s structural foundations. Collective faculty approaches of assigning group work as well as individual writing assignments allow for a holistic evaluation of how students compartmentalize diverse perspectives, both collaboratively and independently. Despite the differences between liberal arts disciplines, the foundation of critical thinking is ubiquitous and required in all specialties (at least in the Lehigh CAS). For example, International Relations informs the structure of our society across borders, where hegemony and power come into play, and Religion studies inform the individual-level interactions of these power structures in day-to-day cultural practices. Both disciplines require their students to critically analyze the readings, lectures, and articles assigned in class and develop well-argued perspectives about them; this is not a distinguishable element of STEM coursework. Some liberal arts professors are deliberate about their teachings of this connection, while others were surprised to learn that cultural competence was developed organically. It was surprising to find that even the most perceived culturally competent individuals did not share in that perception of themselves, leading to the question of whether complete cultural competence is ever truly attainable:

> If I could reduce how I have come into cultural humility to two words, it would be painful experience. I spent three years as a Peace Corps Volunteer. And still at the end of that, I think I was not yet culturally humble. I then spent six years working on my PhD in Anthropology. And still at the end of that, I wouldn't consider myself fully culturally humble. I spent 20 years married to a woman from another cultural group, and, and I'm still running into the limitations of my own cultural perspective. So, I think cultural humility for an anthropologist is a bit like enlightenment is for a Buddhist: You can get closer to it, but you can never really achieve it in this life.

Evidently, cultural competence is a lifelong journey. Regardless of the level it has been developed from personal identity development, formal learning experiences about the cultural flows of our society are invaluably incorporated at the patient bedside. A medical student with exposure to the liberal arts is balanced in their biomedical foundations with an ability to critically analyze the human interactions and structural forces that comprise our globalizing world. Through an interdisciplinary perspective, the capacity for memorizing and describing complex metabolic pathways combines with the humanistic evaluative elements of social sciences. In this way, courses such as Biochemistry and Physics have a broader outcome, beyond their traditional pass/fail structure. Through experiential learning, students learn that community engagement is not merely a resumé booster, and that technology is not a solution to communication barriers; instead, they provide students with the tools and the opportunity to interact with diverse individuals and develop cultural fluency. Ultimately, deeming cultural competence an AAMC pre-medical requirement is not a fix to the lack of diverse perspectives in medical schools; medical institutions should back up their verbal commitments to inclusiveness with curriculum changes that reflect students' desires and capacities for growth. Cultural competence, with all its complexity, needs to be recognized as an essential aspect of patient care.

Limitations and Future Directions

As the number of interviews conducted for this study rose, so did the amount of unanswered, broad questions about the implications of cultural competence in medical education. Evidently, cultural competence is not limited to a single discipline, thus it was realized that the

concept must be addressed in a multidimensional manner. The relevancy of cultural competence in medicine became so complex that a core argument for this study was that the concept should be interwoven into various elements of medical curricula. To answer the question of how community engagement increases degrees of cultural competence in medicine, it would have been informative to speak with directors of service opportunities in the Lehigh Valley, particularly the parish nurses working with Laundry on Linden, who collaborate with the SLUHN medical students every week at the student-led laundromat medical clinic initiative. The dynamic of the collaboration between the service program and the medical school would have been interesting to analyze in context of the contrast between developing cultural competency in pre-medical candidacy versus as a medical student in training. To delve deeper into the idea of standardizing cultural competence training across all medical staff and contrast the perspectives within healthcare, it could have been interesting to speak with assistive care personnel in the hospital, such as nurses, PCAs, and MAs to understand their perceptions of cultural competence. Contrasting these perspectives with physician and medical students' understandings of the topic would have been a good topic of analysis. Given their increased interaction time with patients at the bedside, assistive care personnel would have been valuable perspectives to gauge regarding the importance of cultural competence in the patient care experience.

At the pre-medical level, conversations with professors in STEM disciplines would have helped answer the question of why cultural competence is perceived as "missing" from their hard science curricula and informed further interdisciplinary understandings of cultural competence. In this way, evaluation methods for cultural competence could have been a more prominent subject of conversation, especially in the context of the newly developed AAMC PREview exam[16]. While some interviewees asserted that students will "learn how to study for it" and figure out what the "correct" types of answers are, others asserted that standardizing cultural competence could help solidify the requirement in the medical curriculum. Once data for the exam are released, an analysis of students' results over time would be informative as to the AAMC's true intentions for requiring cultural competence. In this way, the perceived value for cultural competence by the AAMC will become evident. Another future direction might address

[16] The AAMC PREview exam is a new initiative for assessing pre-medical interpersonal competencies, like the Casper exam in ethics.

the diversity of application for cultural competence within and across medical specialties. The physician and medical student interviews in this study merely scratch the surface of all the medical specialties that exist, and there are sub-specialties within each specialty discussed in the physician interviews (Figure 7). The contrast between medical specialties' understanding of cultural competence varied widely in a way that would make it useful for future study. For example, one Emergency Medicine specialist mentioned that there was "less room" for cultural competence in the specialty, given the acuity of patients' conditions when they come into the emergency room as well as the "fast-paced, algorithmic" process of ruling out different diagnoses. Meanwhile, pediatricians and other primary care providers noted the fundamental importance of demonstrating cultural competence with all members of their patients' families. One pediatrician noted, "For every patient we see, we always say that there's three: the child, the mom, and the dad. And so there is a wide range of cultural competence between these three individuals, equally importantly, that we have to learn to manage." Conversations with OB/Gyn specialists informed the unique application of cultural competence to the context of gender nonconforming individuals and diverse sexual identities, and a bariatric surgeon described the relevance of cultural competency in treating patients of different body types and relationships with food. A better understanding of how cultural competence is diversely applied within and across the many medical specialties will best inform how to train medical residents in the concept.

CONCLUSION

Illness should be considered part of culture, as the definition of the word itself is contingent on the social norms present within the cultural community. There is great diversity in medical practice across the globe, giving rise to differences in "the illness experience" between communities (Brown & Barrett, 2009, 10). Historic systemic issues have led to individual socioeconomic differences which tie cultural competency to social determinants of health and other lifestyle conditions. To help understand this cross-cultural complexity, medical anthropologists collaborate with doctors, nurses, and other health practitioners to describe how health and illness are shaped, perceived, and experienced in the context of differing cultural, historical, and political forces. However, this collaboration to promote forward-thinking in the healthcare system is not always successful in medical practice. The lack of focus by American medical institutions on developing culturally competent physicians runs the risk that patients' cultural backgrounds become an afterthought to their biomedical path to treatment.

Through discourse analysis, this study reveals that there are many diverse interpretations of cultural competence, thus making it difficult to measure and evaluate. There is evidence for the successful development of cultural competence in an interdisciplinary, engaging classroom setting, but there is also a wide range of experiential learning opportunities that help prepare students for their interactions with future patients. Interprofessional collaboration in the humanities at both the undergraduate and medical school level is essential to building the foundation for these interactions; these efforts have been demonstrated by undergraduate students at Lehigh University as well as medical students at Temple/St. Luke's. However, standardizing medical education in cultural competence is difficult because the term is so diversely defined and uniquely applied in different settings (including medical specialties). Ultimately, it is easier to define what cultural competence is *not* than to determine what it is or how it is applied. Holding physicians accountable for cultural humility is a more realistic goal, as this promotes history-based education on the topic and helps avoid biases in the illness negotiation process. It is only with interprofessional collaboration between medical personnel and administrative faculty that change can occur to prioritize quality care for the increasingly diversifying patient pool. Will American medicine ever unconditionally prioritize patients' self-advocacy?

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