CHECKING THE PULSE ON CULTURAL COMPETENCE AND BIAS LITERACY IN MEDICAL EDUCATION

by

VERONICA GIOVANNI GILLIARD

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CHECKING THE PULSE ON CULTURAL COMPETENCE AND BIAS LITERACY IN MEDICAL EDUCATION

By

VERONICA GIOVANNI GILLIARD

Approved:

Edward Bouie, Jr., Ed.D. 
Dissertation Committee Chair

Date

Carol Isaac, Ph.D. 
Dissertation Committee Member

Date

Joseph Balloun, Ph.D. 
Dissertation Committee Member

Date

Kathryn Kloepper, Ph.D. 
Dissertation Committee Member

Date

Jane West, Ed.D. 
Director of Doctoral Studies, Tift College of Education

Date

J. Kevin Jenkins, Ed.D. 
Chair, Educational Leadership

Date

Keith E. Howard, Ph.D. 
Interim Dean of Graduate Studies

Date
DEDICATION

I would like to dedicate this small contribution to the field of cultural competence and bias literacy in medical education to Rose Hillman, a faithful member of New Life Covenant Church, in Atlanta, Georgia. After complaining of a headache, Rose, who was uninsured, went to the emergency room. I know that Rose was diagnosed and released with written instructions for care. What I don’t know is if any of the physicians who treated her knew that Rose could not read and had a very basic understanding of verbal communication. I also don’t know is if this knowledge would have changed Rose’s treatment and care. Rose died in 2017.
ACKNOWLEDGEMENTS

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To countless friends and extended family, I thank you for encouraging me to stay the course, particularly in those moments when I wanted to quit. To my cohort members: Ashley, Jeff, Lori, Mansour, NyThea, Stephanie, and Zarie, thank you for your camaraderie; each of you are like family to me. To Mark and Regina, thank you for providing me a home away from home to write, analyze, and study.

Lastly, I want to thank my physician, Dr. Alyssa Dayton, who always took the time to provide holistic care by treating me—medically and interpersonally—with respect, concern, and kindness.

To God be the glory for the things He has done!
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DEDICATION</td>
<td>iv</td>
</tr>
<tr>
<td></td>
<td>ACKNOWLEDGEMENTS</td>
<td>iv</td>
</tr>
<tr>
<td></td>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td></td>
<td>ABSTRACT</td>
<td>xi</td>
</tr>
<tr>
<td></td>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. INTRODUCTION TO THE STUDY</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Statement of the Problem</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Research Questions</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Purpose of the Study</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Theoretical Framework</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Significance of the Study</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Procedures</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Limitations and Delimitations</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Definition of Terms</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>2. LITERATURE REVIEW</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Disparities in Healthcare</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Community Strategies</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Bias and Stereotyping</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Skills Specific to Cross-Cultural Communication</td>
<td>35</td>
</tr>
</tbody>
</table>

vi
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Interpreters within the Physician-Patient Relationship</td>
<td>40</td>
</tr>
<tr>
<td>Self-Reflection on the Culture of Medicine</td>
<td>44</td>
</tr>
<tr>
<td>Bias Literacy and Cultural Competence in Healthcare</td>
<td>48</td>
</tr>
<tr>
<td>Cultural Competence in Medical Education</td>
<td>49</td>
</tr>
<tr>
<td>Bias Literacy</td>
<td>52</td>
</tr>
<tr>
<td>Summary</td>
<td>53</td>
</tr>
<tr>
<td>3. METHODOLOGY</td>
<td>55</td>
</tr>
<tr>
<td>Rationale for Research Study</td>
<td>57</td>
</tr>
<tr>
<td>Research Questions</td>
<td>58</td>
</tr>
<tr>
<td>Research Design</td>
<td>59</td>
</tr>
<tr>
<td>Sample</td>
<td>62</td>
</tr>
<tr>
<td>Participants</td>
<td>62</td>
</tr>
<tr>
<td>Validation</td>
<td>63</td>
</tr>
<tr>
<td>Subjectivity Statement</td>
<td>64</td>
</tr>
<tr>
<td>Institutional Review Board Approval</td>
<td>64</td>
</tr>
<tr>
<td>Data Collection</td>
<td>65</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>66</td>
</tr>
<tr>
<td>Reporting Results</td>
<td>67</td>
</tr>
<tr>
<td>Summary</td>
<td>68</td>
</tr>
<tr>
<td>4. RESULTS</td>
<td>70</td>
</tr>
<tr>
<td>Research Questions</td>
<td>71</td>
</tr>
<tr>
<td>Null Hypotheses</td>
<td>72</td>
</tr>
<tr>
<td>Respondents</td>
<td>73</td>
</tr>
<tr>
<td>Demographics</td>
<td>73</td>
</tr>
<tr>
<td>Quantitative Findings</td>
<td>77</td>
</tr>
<tr>
<td>Domain I (Health Disparities)</td>
<td>81</td>
</tr>
<tr>
<td>Domain II (Community Strategies)</td>
<td>82</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS (Continued)

CHAPTER

| Domain III (Bias/Stereotyping)   | 83 |
| Domain IV (Skills Specific to Cross Cultural Communication) | 83 |
| Domain V (Use of Interpreters)   | 85 |
| Domain VI (Self-Reflection, Culture of Medicine) | 85 |
| Most and Least Integrated Domains by Institutional Role | 98 |
| Qualitative Findings             | 101 |
| Theme One.                       | 103 |
| Theme Two.                       | 111 |
| Second Open-Ended Question       | 118 |
| Third Open-Ended Question        | 123 |
| Summary                          | 131 |

5. DISCUSSION ..................................................................................................... 141

| Summary of the Study             | 143 |
| Discussion of Findings           | 146 |
| Implications for Practice        | 163 |
| Recommendations for Research     | 164 |
| Summary                          | 165 |

REFERENCES ............................................................................................................... 168

APPENDICES ................................................................................................................ 192

A. INFORMED CONSENT AND QUESTIONNAIRE ....................................................... 193
B. RECRUITMENT LETTER .................................................................................... 202
C. RECRUITMENT EMAIL ...................................................................................... 204
D. INSTITUTIONAL REVIEW BOARD APPROVAL LETTER ....................................... 206
E. PERMISSION TO USE REVISED TACCT (LIE ET AL., 2008) .............................. 208
LIST OF TABLES

1 Research Questions ........................................................................................................ 14
2 Literature Review Organizational Structure ................................................................. 21
3 Levene Statistic .............................................................................................................. 78
4 Robust Tests of Equality of Means ................................................................................ 79
5 One-Way ANOVA ........................................................................................................... 80
6 Hypotheses ..................................................................................................................... 87
7 Tukey’s Honestly Significant Difference Test .............................................................. 89
8 Descriptive Statistics ...................................................................................................... 97
# LIST OF FIGURES

1. Theoretical Framework ........................................................................................................... 9
2. Counties/parishes with the Lowest Personal Per Capita Incomes in the US .................. 16
3. Number of Institutional Role(s) by Participant ................................................................. 76
4. Institutional Role(s) of Participants .................................................................................. 76
5. Group Averages Across Domain Means .......................................................................... 100
6. Qualitative Component of the Study ............................................................................. 102
7. Benefits of Cultural Competence as a Tool to Address Disparities in Healthcare ...... 103
8. Institutional Engagement with Cultural Competence Interventions ............................ 119
9. Cultural Competence Interventions Instituted by Faculty Members ........................... 124
10. Theoretical Framework Application ................................................................................ 146
ABSTRACT

VERONICA GIOVANNI GILLIARD
CHECKING THE PULSE ON CULTURAL COMPETENCE AND BIAS LITERACY IN MEDICAL EDUCATION
Under the direction of EDWARD BOUIE JR., Ed.D.
Educational Leadership Department, Tift College of Education, Mercer University

Although medical schools often require diversity training, research indicates individuals from racial and ethnic minorities and those from low socioeconomic backgrounds are adversely impacted by the lower quality of healthcare they sometimes receive from physicians due in part to stereotypes, negative predispositions, and bias. Understanding if and how faculty members are teaching medical students to identify and mitigate their own implicit biases within clinical encounters may reduce current nationwide healthcare disparities for stigmatized groups. This study involved an online mixed methods questionnaire of faculty members at twenty-seven LCME-accredited medical schools in the Southeastern United States. The purpose of this study was to: 1) understand if medical school faculty members, course directors, clerkship directors, and program directors equally integrate cultural competence and bias literacy learning objectives in their respective roles; and 2) understand how medical school faculty members, course directors, clerkship directors, and program directors are integrating learning objectives related to cultural competence and bias literacy in their respective roles.
The results of this study indicated medical school faculty members, course directors, clerkship directors, and program directors equally integrated learning objectives regarding health disparities, community strategies, bias/stereotyping, and self-reflection on the culture of medicine; however, integration of learning objectives regarding communication skills specific to cross-cultural communication and use of interpreters were statistically significant. Five participants cited neutral or negative perceptions of cultural competence education as a tool to equip future physicians to address disparities in healthcare and 95% of participants described perceived benefits including: 1) increased self-awareness, 2) increased understanding of the social and historical nature of health disparities, 3) error reduction and improved outcomes, 4) competent and holistic care, 5) specialized care, 6) cultural sensitivity, 7) established trust, and 8) mutual respect. Informal and formal interventions used to integrate cultural competence were reported across institutional curricula. Faculty members self-reported specific curricular interventions, role modeling, critical appraisal of literature, explication of social barriers, and experiential learning within impacted communities to address disparities in healthcare in their respective roles. These findings necessitate standardization within medical education regarding learning objectives related to communication skills specific to cross-cultural communication and use of interpreters.
CHAPTER 1
INTRODUCTION

By the year 2044, the United States Census Bureau predicts more than half of all Americans will be people of color, and by 2060, almost 20% of America’s population will have been born outside of the United States (Colby & Ortman, 2015). As the composition of America becomes increasingly diverse, researchers have spent decades intensely investigating social equity within healthcare for patients of varying marginalized backgrounds. In 2002, the Institute of Medicine published several research studies chronicling disparities within the healthcare system, primarily along socioeconomic, racial and ethnic lines. Through landmark research, Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care (2002) critically examined multiple facets of the clinical encounter, including, but not limited to, the attitudes, expectations, behaviors, and outcomes of both patients and providers. Although Unequal Treatment was published 17 years ago, overwhelmingly, research continues to indicate racial and ethnic disparities in healthcare are still present across a variety of illnesses and healthcare services today (Feagin & Bennefield, 2014; LaVeist et al., 2011; Matthew, 2015; Nelson et al., 2002). Additional research shows that health disparities are also still associated with an individual patient’s socioeconomic status (Agargh et al., 2011; Clark et al., 2009; Janati et al., 2011; Nelson et al., 2002; Saydah & Lochner, 2010; Williams & Sternthal, 2010).
Presented with this knowledge, many future healthcare professionals are being educated under an emerging phenomenon in medical education that is concerned with race, ethnicity, and socioeconomic class as important social determinants of health as “healthcare models have been proposed to shift from a somewhat paternalistic healthcare model to an approach that engages the patient in decision-making and self-care” (Renzaho et al., 2013, p. 262). Engaging the patient in decision-making and self-care, however, has proven difficult within medical education. Research indicates “beyond experiencing different styles of communication, minority patients also routinely receive less information from their providers about their health and health choices than white patients” (Matthew, 2015, p. 111). Disparities regarding how and what physicians communicate to their patients may be related to stereotypes and unconscious bias regarding social groups to which their patients belong as opposed to more appropriate clinical judgments that incorporate both social circumstances and medical details (Matthew, 2015). Research suggests that stereotypes, perceptions, and implicit bias toward stigmatized social groups have been shown to influence physicians’ clinical decisions (Bernheim et al., 2008; Meyers et al., 2006).

As a result of consistent findings which are indicative of differentiated quality of healthcare for stigmatized groups, particularly along socioeconomic, racial, and ethnic lines, researchers have strongly recommended the incorporation of direct culturally appropriate education programs for healthcare providers (Feagin & Bennefield, 2014; LaVeist et al., 2011; Matthew, 2015; Nelson et al., 2002; Sukhera & Watling, 2018).
Experts insist “cross-cultural curricula should be integrated early into the training of
future healthcare providers, and practical, case-based, rigorously evaluated training
should persist through practitioner continuing education programs” (Nelson et al., 2002,
p.2). Likewise, the American Association of Medical Colleges (AAMC) has also called
on medical students to explore several social determinants of health by seeking to
understand the impact of “the cultural and social differences that influence well-being;
and the relationships between social stratification, access to resources, and well-being”
(AAAMC, 2013). By advocating for both continuing education programs and cross-
disciplinary learning environments, researchers are reinforcing that the process of
becoming culturally competent is both ongoing and intricate—and relevant for medical
students and practicing professionals alike.

Although cultural competence curricula are becoming more readily available,
researchers are increasingly presenting the need for more bias literacy curricula in
professional health education (Gonzalez et al., 2014; Sukhera & Watling, 2018). Cultural
competence is defined as “a set of congruent behaviors, attitudes, and policies that come
together in a system, agency, or among professionals that enables effective work in cross
cultural situations” (Cross et al., 1989, p. iv). Bias literacy, however, goes a bit further by
emphasizing not just knowledge and compliance, but rather integrating responsibility for
individuals (all of whom have biases) to identify and mitigate their biases, both seen and
unseen, within their interactions with others from dissimilar backgrounds (Ross, 2014;
Sukhera & Watling, 2018). It is important to remember that the aims of bias literacy
curricula are two-fold: first, individuals must become aware of their own biases, and
second, there must be a concerted, ongoing effort to mitigate these biases (Sukhera & Watling, 2018).

While the total elimination of bias is not possible, many educational leaders have often attempted to incorporate implicit bias topics into curricula within professional health programs to manage the negative impact of bias on patient outcomes and encounters (Boscardin, 2015; Burgess et al., 2004; Czopp et al., 2006; Ross, 2014; Virauer & Sasaki, 2009). These attempts, however, have not come without difficulty, as many institutions struggle to recruit and retain diverse faculty members, many faculty members express a perceived lack of relevance for implicit bias topics, and increasing pressure from the academy reinforces a tendency to focus curricula only on medicinal topics deemed ‘scientific enough’ for study (Johnson et al., 2008; Tyler et al., 2009). These challenges, coupled with a lack of readily available assessment and evaluation tools specifically designed for implicit bias informed curricula, make the integration of bias literacy within culturally competent healthcare education quite inconsistent (Gonzalez et al., 2014).

Despite these complications, theorists and researchers have approached the prevalence of implicit bias within healthcare with frameworks from several perspectives and academic disciplines. Researchers have focused frameworks on how to mitigate the harmful effects of implicit bias within the broader scheme of healthcare (Blair et al., 2011), created developmental models which move from denial of bias to active bias mitigation for medical learners (Teal et al., 2012), and analyzed how to counter faculty biases toward students based on gender (Moss-Racusin et al., 2012).
In light of literature that shows negative implicit associations “may lead to inaccurate or compromised clinical decisions and an erosion of trust between health professionals and patients due to poor interpersonal interactions and biased behaviors” (Sukhera & Watling, 2018, p. 1), the integration of both bias literacy and cultural competence into healthcare education could help mitigate the impact of stereotypical negative predispositions on patient outcomes and experiences within the clinical encounter (Chapman et al., 2013; Dovidio et al., 2002, Fazio et al., 1995; Green et al., 2007; Sabin & Greenwald, 2012).

Statement of the Problem

Although many medical schools require courses and exercises relating to diversity, research indicates that a patient’s socioeconomic status (SES), race, and ethnicity can negatively influence the quality of healthcare they receive from a physician in part due to stereotypes, negative predispositions, and bias (Arpey et al., 2017, Clegg et al., 2009; Matthew, 2015, Wilf-Miron et al., 2010; Phelan et al., 2010). Therefore, understanding if and how faculty members are teaching medical students to identify and mitigate their own implicit biases within clinical encounters may reduce current nationwide disparities in quality of healthcare for stigmatized groups (Blair et al., 2011; Stone & Moskowitz, 2011).

Research Questions

Research questions for this study are listed below.

1) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding health disparities?
2) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding community strategies?

3) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding bias and stereotyping?

4) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding communication skills specific to cross-cultural communication?

5) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding the use of interpreters?

6) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding self-reflection on the culture of medicine?

7) How do medical school faculty members, course directors, clerkship directors, and program directors perceive cultural competence education can equip future physicians to address disparities in healthcare?

8) How do medical school course directors, clerkship directors, and program directors perceive their institutions address healthcare disparities through their academic curriculum?

9) How do medical school course directors, clerkship directors, and program directors, in their respective roles, equip future physicians to address disparities in healthcare?
Purpose of the Study

The purpose of this study was to: 1) determine if medical school faculty members, course directors, clerkship directors, and program directors equally integrate cultural competence and bias literacy learning objectives in their respective roles; and 2) gain more insight as to how medical school faculty members, course directors, clerkship directors, and program directors are integrating learning objectives related to cultural competence and bias literacy in their respective roles.

Theoretical Framework

The theoretical framework of this study is grounded in symbolic interactionism as presented by Sheldon Stryker (1980), a student of the Indiana School. The origins of symbolic interactionism emerged from philosopher George Herbert Mead (1934), who throughout his career wrote extensively about theories regarding the relationship between oneself and society. In *Mind, Self and Society*, Mead explored several concepts which would eventually serve as the groundwork for later symbolic interactionism approaches, including: 1) the “me,” which is an individual’s unregulated self; 2) the “I,” which is formed as a result of responses to the attitudes of others; and 3) humanity’s ability to “take the role of the other” or to imagine the appearance of yourself through someone else’s perspective, which yields self-actualization and self-criticism (Mead, 1934).

Herbert Blumer, a student of Mead, initially coined the term symbolic interactionism. Symbolic interactionism explores human interaction from a social psychology perspective. The premise of symbolic interactionism is sociocultural and the theory professes that individuals are actors who interact with each other based on the way
they ascribe symbolic meaning to other people or things (Blumer, 1986). The symbols themselves do not have meaning, but the meaning of the symbols is constructed and modified in social interactions based on the perceptions of the participants (Blumer, 1986). Consequently, language and communication play a role in how humans assign meaning through social interactions. Concurrently, the ascribed meanings, which come from social interactions, then impact how individuals treat other people or things (Blumer, 1986). Symbolic interactionism argues that humans must use language as a symbol to create shared understanding of how to interact with one another effectively (Blumer, 1986).

From Blumer’s perspective, symbolic interactionism has four basic tenets. At a basic level, Blumer believed that individuals interact with one another based on the meaning objects have to them; secondly, the sociocultural context of an interaction is defined through the perspective of individual meaning; thirdly, individual meaning is created through interaction with both objects and other people; and lastly, meaning is constantly being negotiated as additional interactions occur (1986). Blumer primarily relied on qualitative methods to study symbolic interactionism (Carter & Fuller, 2015).

Manford Kuhn (1964), a student of the Iowa School, strengthened Blumer’s work, but employed quantitative methods to study and predict human behavior (Carter & Fuller, 2015). Stryker (1980), a later sociologist from the Indiana School, studied how behavioral patterns upheld social structures, employing both quantitative and qualitative methods to study symbolic interactionism. Building on Mead’s concept of “taking the role of the other” and Blumer’s concept of “actors” playing a role, Stryker focused on
structural interactions, using quantitative measures to predict future social behavior based on individuals self-identifying and assigning other’s roles (1980). Using qualitative measures, Stryker defines roles as “expectations, which are attached to social positions or symbolic categories that serve to cue behavior” (1980, p. 57). Stryker “treats social roles as emerging from a reciprocal influence of networks or patterns of relationships in interactions as they are shaped by various local structures” (Carter & Fuller, 2015, p. 4).

The theoretical framework of this study involves examining how faculty members educate medical students on roles within the physician-patient relationship and the impact of this education on future structural and interpersonal interactions within the delivery of healthcare to stigmatized groups.

*Figure 1. Theoretical Framework.*
Significance of the Study

This study is significant because, without disruption, the trend of perceptions and biases surrounding race, ethnicity, and socioeconomic status negatively influencing physicians’ clinical judgments will continue. Developing a better understanding of if and how faculty members are teaching medical students to identify and mitigate their own implicit biases within clinical encounters may assist in decreasing the current healthcare disparities that persist within less-affluent communities and with patients of color.

While there are existing studies that explore cultural competence and implicit bias training within medical education, most of these studies involve surveys of medical students. Instead, this study captured some of the pedagogical and programmatic trends of medical school faculty members, course directors, clerkship directors, and program directors around their perception and integration of both bias literacy and cultural competence learning objectives within their respective roles in medical education. While it is important to investigate and determine the impact of cultural competence and implicit bias curricula from the perspective of students, educational leaders must also seek a more specified understanding of if and how faculty members are approaching and integrating cultural competence and bias literacy within medical education because of the evidence of the influence of implicit bias on clinical judgment. Medical students, physicians, patients, and faculty members will benefit from having knowledge about the prevalence of cultural competence and bias literacy curricula within medical education because this information will illuminate content gaps that are not being addressed and areas of attention that may need standardization, updates, or removal. Having a better
understanding of these gaps and areas of attention may, in turn, decrease the persisting trend of physicians’ clinical judgment being negatively influenced by perceptions and biases surrounding race, ethnicity, and socioeconomic status.

Procedures

This study employed a concurrent mixed methods design to determine and investigate if and how medical school faculty members are teaching medical students to identify and mitigate their own implicit biases within clinical encounters. The study was conducted online with Qualtrics. The quantitative portion of this study used the revised TACCT (Lie et al., 2008). The qualitative portion of this study utilized three open-ended questions regarding faculty member perceptions and integration of cultural competence and bias literacy.

The instrument used within this study was the revised Tool for Assessing Cultural Competence Training (TACCT), originally developed by the American Association of Medical Colleges in 2005 and revised by Lie et al in 2008. The original TACCT is a “67-item self-administered assessment tool that can be used by medical schools to examine all components of the entire medical school curriculum” (AAMC, 2017). The revised TACCT focuses on “under-addressed content” and includes 42 items that address the knowledge, skills, and attitudes about particular domains of sociocultural competence (Lie et al., 2008). The revised TACCT has shown high internal consistency and been tested for validity and reliability among subject matter experts (Lie et al., 2008).

In 2008, Lie et al. conducted a study that analyzed revised TACCT results from third and fourth year medical students, course directors, and clerkship directors. The
sample of this study consisted of seven de-identified United States medical institutions that received grants from the National Institute of Health (NIH) or the American Association of Medical Colleges (AAMC) specifically to develop and implement cultural competency curricula (Lie et al., 2008). Findings revealed faculty and students were generally in agreement about what TACCT items had been covered within the curriculum as well as under-addressed content areas (Lie et al., 2008).

Though similar in origin, this study differs from the Lie et al. study for three procedural reasons: 1) this study sampled a wide array of institutions, not only those that specifically received funding to implement cultural competence curricula; 2) this study sampled a wide array of faculty members, including those who identified only as medical school faculty members and those who identified as course directors, clerkship directors, and program directors; and 3) the mixed methods design in this study allowed a bifurcated approach, with quantitative data providing findings on the prevalence of cultural competence and bias literacy learning objectives within medical education and qualitative data that supported findings on how medical school faculty members, course directors, clerkship directors, and program directors are integrating cultural competence and bias literacy learning objectives within their respective roles.

Within this study, it is important to remember that cultural competence and bias literacy are related, though not interchangeable. Cultural competence is necessary for an individual to become aware of their own biases towards those from dissimilar backgrounds, whereas bias literacy is necessary in order for an individual to begin to
learn how to manage and mitigate their own biases within interactions and decision-making.

The population of this study was medical school faculty members, course directors, clerkship directors, and program directors at medical schools in the United States with active accreditations by the Liaison Committee on Medical Education (LCME), the accrediting body recognized by United States Department of Education for M.D. granting medical programs in the United States and Canada. The sample of this study is medical school faculty members, course directors, clerkship directors, and program directors at medical schools with active accreditations by the Liaison Committee on Medical Education (LCME) in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Demographic information was collected from all participants. Participants and institutions were de-identified.

This study administered the revised TACCT (Lie et al., 2008) to medical school faculty members, course directors, clerkship directors, and program directors in ten states. Revised TACCT (Lie et al., 2008) responses were analyzed using descriptive statistics. With the utilization of a one-way ANOVA, medical school faculty members, course directors, clerkship directors, and program directors’ revised TACCT (Lie et al., 2008) responses on each domain were compared in order to determine if there was a difference in average integration of cultural competence and bias literacy learning objectives.
Three open-ended questions were sent alongside the revised TACCT (Lie et al., 2008): 1) How does cultural competence education equip future physicians to address disparities in healthcare? 2) How does your institution address healthcare disparities through academic curriculum? 3) How do you equip future physicians to address disparities in healthcare? The open-ended questions were analyzed using thematic content analysis.

Table 1

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<thead>
<tr>
<th>Research Questions</th>
<th>Data Collection Method</th>
<th>Data Analysis</th>
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</thead>
<tbody>
<tr>
<td>1) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding health disparities?</td>
<td>Revised TACCT (Lie et al., 2008) Domain I</td>
<td>Descriptive statistics One-way ANOVA</td>
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<tr>
<td>2) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding community strategies?</td>
<td>Revised TACCT (Lie et al., 2008) Domain II</td>
<td>Descriptive statistics One-way ANOVA</td>
</tr>
<tr>
<td>3) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding bias and stereotyping?</td>
<td>Revised TACCT (Lie et al., 2008) Domain III</td>
<td>Descriptive statistics One-way ANOVA</td>
</tr>
<tr>
<td>4) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding communication skills specific to cross cultural communication?</td>
<td>Revised TACCT (Lie et al., 2008) Domain IV</td>
<td>Descriptive statistics One-way ANOVA</td>
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Table 1 Continued

5) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding the use of interpreters?
   Revised TACCT (Lie et al., 2008)  
   Domain IV

6) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding self-reflection on the culture of medicine?
   Revised TACCT (Lie et al., 2008)  
   Domain V

7) How do medical school faculty members, course directors, clerkship directors and program directors perceive cultural competence education can equip future physicians to address disparities in healthcare?
   Open-ended question
   Thematic analysis

8) How do medical school faculty members, course directors, clerkship directors and program directors perceive their institution addresses healthcare disparities through their academic curriculum?
   Open-ended question
   Thematic analysis

9) How do medical school course directors, clerkship directors, and program directors, in their respective roles, equip future physicians to address disparities in healthcare?
   Open-ended question
   Thematic analysis

Limitations and Delimitations

One of the limitations of this study was the use of an online questionnaire, which yields response rates approximately 11% lower than other modes (Manfreda et al., 2008). The self-reporting nature of the questionnaire introduced social desirability bias as another limitation of this study, as some participants may have altered their responses in order to be perceived in a manner seen as favorable by the researcher. An additional limitation is the interpretation of revised TACCT (Lie et al., 2008) items, which may vary from respondent to respondent.
One delimitation of this study includes sampling from LCME-accredited medical schools in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Of the 158 counties/parishes (bottom 5%) with the lowest personal per capita incomes in the nation, 90 (57%) are located in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia (Bureau of Economic Analysis, 2018). Since these states represent some of the poorest parts of the nation, they were of interest for this study because an individual’s access to quality healthcare is adversely impacted by a low socioeconomic status (Agargh et al., 2011; Clark et al., 2009; Janati et al., 2011; Nelson et al., 2002; Saydah & Lochner, 2010; Williams & Sternthal, 2010).

Figure 2. Counties/parishes with the lowest personal per capita incomes in the US (Bureau of Economic Analysis, 2018).
Another delimitation is sampling only from medical school faculty members, course directors, clerkship directors, and program directors. This delimitation was imposed because faculty members in these roles are considered the top academic leaders of the institution and are responsible for decision making regarding curricular outcomes and learning objectives for medical students. Literature documents that physicians are likely to amend clinical decisions upon awareness of unconscious biases (Blair et al., 2011; Stone & Moskowitz, 2011). Thus, this delimitation seeks to determine and investigate if and how medical school faculty members, course directors, clerkship directors, and program directors are teaching medical students to identify and mitigate their own biases within interpersonal encounters and clinical judgment.

Definition of Terms

_Clerkship Directors_ - The clerkship director is an academic leader in the education of medical students on clinical rotations. Generally, clerkship directors are responsible for:

1) managing a full-time clinical experience that meets departmental and medical school learning objectives for the clerkship for every student, 2) creating a written set of core educational goals and objectives for the clerkship, with a plan for periodic review, 3) coordinating all clinical rotation schedules, 4) selecting materials that support the curriculum, such as didactics and readings, 5) outlining clear and specific expectations and standards for student participation in patient care at clinical sites, 6) creating an overall strategy for assessment of individual students and for programmatic evaluations linked to the goals and objectives, 7) selecting and creating examinations, if used, that address core goals and that are current, valid, and reliable, 8) submitting written final grades for each student, with a narrative noting goals met, strengths, and areas for continued work, 9) comprising a summary of students with academic difficulty and a clear strategy for remediation for each clerkship cycle, 10) reporting on the sufficiency and comparability of clerkship experiences at all teaching sites and 11) assisting students applying to residency programs. (Pangaro et al., 2003, p. 218)
**Clinical Judgment** - “An interpretation or conclusion about a patient’s needs, concerns, or health problems, and/or the decision to take action (or not), use or modify standard approaches, or improvise new ones as deemed appropriate by the patient’s response” (Tanner, 2006, p. 204).

**Course Directors** - Course directors:

Lead the design, implementation, management, student assessment, and course evaluation in alignment with the medical student competencies, recommendations of the Curriculum Committee and its standing subcommittees, and pertinent national recommendations. Course directors are responsible for developing and maintaining the vision for the short-term and long-term development and activity of the course. This is a continuing effort that entails development, planning, reporting, evaluating, and monitoring to balance the discipline-specific interests with the interdisciplinary and overall curricular interests. Course directors must remain informed of trends and practices in medical education, pedagogy, technology, and administration. Planning involves consultation with faculty, staff and instructors, and administration. (Western Michigan University, 2016, p. 44)

**Ethnicity** - For the purposes of this study, ethnicity is defined as:

A segment of a larger society whose members are thought, by themselves or others, to have a common origin and share segments of a common culture and who, in addition, participate in shared activities in which the common origin and culture are significant ingredients. (Yinger, 1976, p. 200)

**Disparities in Healthcare** – “Racial or ethnic differences in the quality of healthcare that are not due to access related factors or clinical needs, preferences and appropriateness of intervention” (Nelson et al., 2002, p. 4).

**Implicit Bias** - “The attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner. Activated involuntarily, without awareness or intentional control. Can be either positive or negative. Everyone is susceptible” (Staats et al., 2016, p. 14).
Medical School Faculty Members - For the purposes of this study, medical school faculty members will be defined as those who instruct medical students at a medical school, but who do not identify as a course director, clerkship director, or program director. Medical school faculty:

Through the faculty committee responsible for the medical curriculum, ensure that the medical curriculum uses formally adopted medical education program objectives to guide the selection of curriculum content, to review and revise the curriculum, and to establish the basis for evaluating programmatic effectiveness. The learning objectives of each required course and clerkship are linked to medical education program objectives. (LCME, 2014)

Minoritized - Refers to groups of people who are subjected to social and differential treatment (Benitez, 2010).

Mitigation - “The action of reducing the severity, seriousness, or painfulness of something” (Oxford English Dictionary).

Program Director – For the purposes of this study, program directors:

Have authority and accountability for the operation of the program and has broad responsibilities that encompass every aspect of postgraduate medical education training. This includes oversight of: 1) curriculum and evaluation, 2) the learning environment, 3) faculty as teachers, coaches, mentors, advisors and role models, 4) supervision of residents and fellows, and 5) program management (e.g., program evaluation and improvement, communications, ACGME accreditation, program resources). (University of Wisconsin School of Medicine, 2014)

Race - A social construction that “refers to a sense of group or collective identity based on one’s perception that he or she shares a common heritage with a particular racial group” (Helms, 1993, p. 243).

Self-awareness - “Conscious knowledge of one’s own character and feelings” (Oxford English Dictionary).
**Socioeconomic Status** - “The social standing or class of an individual or group. It is often measured as a combination of education, income and occupation” (American Psychological Association, 2017).

**Summary**

To address growing healthcare disparities along racial, ethnic, and socioeconomic lines, resources must be devoted to the study of cultural competence and bias literacy which may guide medical students toward exercising cultural competence, as well as identifying and mitigating their own implicit biases and the impact of these biases on clinical judgment. Gaining further understanding about if and how medical school faculty members are teaching medical students to identify and mitigate their own implicit biases within clinical encounters may reduce nationwide healthcare disparities and growing discord within the physician-patient relationship for individuals from low socioeconomic backgrounds as well as racial and ethnic minorities. Extensive research regarding the role of faculty learning objectives relating to bias literacy and cultural competence within medical education are necessary so that educational leaders can set benchmarks and effectively assess curricular methods of addressing growing healthcare disparities for individuals from stigmatized groups.
CHAPTER 2

LITERATURE REVIEW

The review of literature for this study encompasses disparities in American healthcare, physician bias, and stereotyping. The relevant literature examines the influence of stereotyping on the clinical encounter, as well as the role of bias literacy and cultural competence within medical education. Also examined are a review of the historical interplay between bias literacy and cultural competence in healthcare, skills specific to cross-cultural communication within the clinical encounter, the use of interpreters within the physician-patient relationship, community-based health interventions, and self-reflection on the culture of medicine and its connection to bias and stereotyping.

Table 2

*Literature Review Organizational Structure*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Literature Review Category</th>
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<tr>
<td>1) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding <em>health disparities</em>?</td>
<td>Disparities in Healthcare</td>
</tr>
<tr>
<td>2) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding <em>community strategies</em>?</td>
<td>Community Strategies</td>
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Table 2 Continued

3) Do medical school faculty members, course directors, clerkship, directors and program directors equally integrate learning objectives regarding bias and stereotyping?

4) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding communication skills specific to cross cultural communication?

5) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding the use of interpreters?

6) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding self-reflection on the culture of medicine?

7) How do medical school faculty members, course directors, clerkship directors, and program directors perceive cultural competence education can equip future physicians to address disparities in healthcare?

8) How do medical school faculty members, course directors, clerkship directors, and program directors perceive their institution addresses healthcare disparities through their academic curriculum?

9) How do medical school course directors, clerkship directors, and program directors, in their respective roles, equip future physicians to address disparities in healthcare?

Physician Bias and Stereotyping
Skills Specific to Cross-Cultural Communication
Use of Interpreters within the Physician-Patient Relationship
Self-Reflection on the Culture of Medicine
Connection Between Bias Literacy and Cultural Competence in Healthcare
Cultural Competence and Bias Literacy in Medical Education
Bias Literacy

Disparities in Healthcare

Over the last forty years, there has been a high level of research activity focused on disparities within American healthcare. Recent research across a variety of disciplines
has indicated a differentiated quality of care and health outcomes for minoritized groups (Diez Roux, 2012; Spencer & Grace, 2016). The term *minoritized* is a verb often used in scholarly literature to refer to groups of people who are subjected to social and differential treatment (Benitez, 2010). In contrast, the term *minority* is a noun that does not account for sociocultural influences and often refers to a numerical quantity.

The role of implicit bias and cultural competence within healthcare disparities has been researched from many perspectives including race (Dovidio & Fiske, 2012; Sewell & Velayos, 2013), ethnicity (Dovidio & Fiske, 2012), socioeconomic status (Braveman & Gottlieb, 2014; Sewell & Velayos, 2013), sexual orientation (Fallin-Bennett, 2015; Khalili et al., 2015; Mansh et al., 2015; Sabin et al., 2015), gender identity (Mansh et al., 2015; Phillips et al., 2016; Safer et al., 2016), ability (Kuenburg et al., 2016), weight (Puhl et al., 2016), native language (Paternotte et al., 2015) and other social identifiers. Several landmark studies and reports regarding healthcare disparities have provided crucial direction for further study and illustrations of the practical implications of implicit bias.

In early 1984, President Reagan’s Secretary of Health and Human Services, Margaret M. Heckler, issued *Health, United States, 1983*, an annual report on health issues of Americans. Heckler was fairly pleased with the report’s findings, but she noted a blemish among the otherwise significant progress—disparities in death and illness of minorities when compared to America’s white population (Heckler, 1985). Heckler noted these disparities “have existed ever since accurate federal record keeping began more
than a generation ago” and called the disparities “an affront to both our ideals and the ongoing genius of American medicine” (Heckler, 1985, p. 3).

In 1985, Heckler gathered experts to conduct a comprehensive study on the status of minority health. The Task Force on Black and Minority Health was principally charged with “synthesizing the present state of knowledge and major factors that contribute to the health status of Blacks, Hispanics, Asian/Pacific Islanders and Native Americans” (Heckler, 1985, p.1). According to Dr. Thomas Malone, chairman of the Task Force on Black and Minority Health and, at the time, the Deputy Directory of the National Institutes of Health, this report represented the first time the United States Department of Health and Human services “consolidated minority health issues into one report” (Heckler, 1985, p. 1).

The findings, known colloquially as the Heckler Report, were released in 1985. Researchers analyzed over 40 disease categories in order to determine where “excess deaths” were taking place among minority populations (Heckler, 1985, p. 3). Excess deaths were defined as “the difference between the number of deaths observed in minority populations and the number of deaths which would have been expected if the minority population had the same age and sex-specific death rate as the nonminority population” (Heckler, 1985, p.3). Upon reviewing mortality data from 1979-1981, experts found the following six health problems to be the primary causes of more than 80% of excess deaths among minorities: 1) cancer, 2) cardiovascular disease and stroke, 3) chemical dependency, 4) diabetes, 5) homicides and accidents, and 6) infant mortality (Heckler, 1985, p. 4). Six subcommittees, one per cause, were charged with
“investigating the physiological, cultural and societal factors that, in combination, perpetuate health inequities for minorities” (Heckler, 1985, p. 4).

Task Force Committee members attended presentations on minority health, including national meetings of professional non-federal organizations to solicit feedback on minority health priorities and intervention models. The Task Force also surveyed over 350 non-federal organizations and individuals about “critical factors affecting the health status of minorities and requested examples of successful programs and suggestions for ways the Department of Health and Human Services might better address minority health needs” (Heckler, 1985, p. 6). Finally, task force members prepared an inventory of prevention, healthcare and research programs sponsored by the United States Department of Health and Human Services (Heckler, 1985, p. 6).

Within the Heckler Report, the Task Force on Black and Minority Health made several recommendations necessary to dismantle healthcare inequities for minorities. These recommendations were predicated upon the fact that “sensitivity to cultural factors are often lacking in health care of minorities” (Heckler, 1985, p. 10). The Heckler Report recommended health care approaches be tailored to diversity within and among minority groups (Heckler, 1985). Recommendations of the task force were categorized into six areas: 1) health information and education, 2) health services, 3) health professions development, 4) cooperative efforts, 5) data development, and 6) research agendas (Heckler, 1985).

Experts reviewing the data suggested minority patients may have less knowledge about “specific health problem areas” than non-minorities (Heckler, 1985, p. 9).
Therefore, patient education was suggested as a method to combat minority healthcare disparities. When designing health information and education, the task force recommended “meeting the language and cultural needs of each identified minority group, using minority-specific community resources for tailoring educational approaches, and developing materials and methods of presentation commensurate with the educational level of the target population” (Heckler, 1985, p. 10). Programs such as the Healthy Mothers/Healthy Babies Coalition and the National High Blood Pressure Education Program, which were both founded upon these principles, had demonstrated prior success (Heckler, 1985, p. 10). The task force also recommended reviewing the accessibility and cultural sensitivity of existing health education materials by consulting professional members of each minority group (Heckler, 1985, p. 12). Furthermore, the task force asserted “the success of the educational effort is often determined by the credibility of the source of patient education and is highly dependent on the skill and sensitivity of the health care provider” (Heckler, 1985, p. 13). In 1986, in response to the findings of the Heckler Report, the United States Department of Health and Human Services created the Office of Minority Health. In 1987, the Office of Minority Health created its own resource center.

As research continued to emerge regarding racial, ethnic, and socioeconomic disparities in healthcare, the elimination of healthcare discrimination became a national priority. In 2000, the Office of Minority Health released the National Standards for Culturally and Linguistically Appropriate Services (CLAS), which proclaimed “by
tailoring services to an individual's culture and language preferences, health professionals can help bring about positive health outcomes for diverse populations” (CLAS, 2018).

In 2002, Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare, a seminal volume of evidence documented by a panel of experts, provided insight into how people of color experience the healthcare system. Unequal Treatment documented not only disparities in treatment, but also disparities present within the clinical encounter and within broader healthcare systems. The authors promoted cross-cultural education as a tool to improve provider-patient communication and offered guidance for the integration of cross-cultural learning within health professions (Nelson, 2002).

Also in 2002, the American College of Cardiology and the Henry J. Kaiser Cardiology Foundation published another seminal literature review including 81 studies about racial and ethnic disparities in cardiac care. The 81 studies looked for racial and ethnic differences in diagnostic procedures, revascularization, coronary artery bypass grafting (CABG), thrombolytic therapy, drug therapy, and cardiac procedures in treatments conducted between 1984 and 2001 (Lillie-Blanton et al., 2002). Sixty-eight of the included research studies found racial/ethnic differences in cardiac care; forty-six of the included research studies found differences in cardiac care for all investigated procedures and treatments; twenty-two of the included research studies found differences in cardiac care for some procedures and not others; eleven of the included research studies found no racial or ethnic differences in cardiac care; and two of the included research studies found racial/ethnic minorities were more likely to receive appropriate
cardiac care than white patients (Lillie-Blanton et al., 2002). The only area of cardiac care included within this literature review that did not provide evidence of racial/ethnic disparities was drug therapy (Lillie-Blanton et al., 2002).

In light of the fact that disparities remain even after controlling for clinical and socioeconomic factors, other underlying causes of healthcare inequities are worthy of continued study. While the authors of the aforementioned study did not conclude that bias and discrimination are directly responsible for healthcare disparities, the researchers did assert that biases exhibited by patients, physicians, and the healthcare system as a whole, each contributed to healthcare disparities (Lillie-Blanton et al., 2002). Furthermore, researchers indicated certain aspects of the physician-patient relationship that fall under control of the physician and are susceptible to bias, such as patient-provider communication, diagnoses, and referrals. The authors stated, “Physicians, therefore, play an important role in efforts to understand why disparities occur and in implementing strategies that seek to assure the highest quality medical care for every individual” (Lillie-Blanton et al., 2002, p.4).

In 2011, the United States Department of Health and Human Services piloted two strategic plans, the *Health and Human Services Action Plan to Reduce Racial and Ethnic Disparities* and the *National Stakeholder Strategy for Achieving Health Equity* (Espinosa, et al., 2016). The goal of the former was to reorient “United States Department of Health and Human Services policies, programs, processes, and resource decisions to reduce health disparities” (HHS, 2011, p.12). The *National Stakeholder Strategy for Achieving Health Equity* outlined five goals:
1) increase awareness of the significance of health disparities, their impact on the nation, and the actions necessary to improve health outcomes for racial, ethnic, and underserved populations, 2) strengthen and broaden leadership for addressing health disparities at all levels, 3) improve health and healthcare outcomes for racial, ethnic, and underserved populations, 4) improve cultural and linguistic competency and the diversity of the health-related workforce, and 5) improve data availability, coordination, utilization, and diffusion of research and evaluation outcomes. (Office of Minority Health, 2011, p. 108)

In 2013, the Center for Disease Control controlled released its *Health Disparities and Inequalities Report* that discussed the social determinants of health, environmental hazards, health care access and preventive services, and behavioral risk factors that impact American health equity (2013).

**Community Strategies**

In the face of documented healthcare discrimination, vulnerable communities—including but not limited to economically disadvantaged, uninsured, racial and ethnic minorities—have begun to employ the use of community-based health workers (CBHWs) to lead healthcare interventions. Community-based health workers are unique “frontline public health workers who are trusted members of the community they serve” (Kim et al., 2016, p.3). Often CBHWs are of the same ethnicity, speak the same language, or have personal history within the geographic location of service. This lived knowledge makes CBHWs aware of sociocultural and experiential factors that may influence the community. History is peppered with incidents of trauma, ethnocide, and genocide when outsiders have conducted research within economically disadvantaged neighborhoods and communities of color (Pacheco et al., 2013). Community-based health workers can provide bridges between marginalized communities and quality healthcare. Recent
research finds “interventions by CBHWs appear to be effective when compared with alternatives and also cost-effective for certain health conditions, particularly when partnering with low-income, underserved, and racial and ethnic minority communities” (Kim et al., 2016, p.e1).

A recent systematic review of 61 research studies involving community-based health workers found that CBHWs take on diverse roles within their communities including: health education (Daniels et al., 2012; Holt et al., 2013; Islam et al., 2013; Katula et al., 2013; Larkey et al., 2012; Lynch et al., 2014; Nuño et al., 2011; Prezio, et al., 2013; Spencer et al., 2011; Tang et al., 2014), counseling (Castañeda et al., 2012; Cooper et al., 2011; Daniels et al., 2012; DePue et al., 2013; Islam et al., 2013; Palmas et al., 2014; Paskett et al., 2011; Prezio et al., 2013; Spencer et al., 2011; Studts et al., 2012; Tang et al., 2014; Wang et al., 2013), navigation assistance (Daniels et al., 2012; DePue et al., 2013; Kenya et al., 2014; Nuño et al., 2011; Prezio et al., 2013; Spencer et al., 2011; Studts et al., 2012; Tang et al., 2014), navigation assistance (Daniels et al., 2012; DePue et al., 2013; Kenya et al., 2014; Nuño et al., 2011; Prezio et al., 2013; Spencer et al., 2011; Studts et al., 2012; Tang et al., 2014), case management (Margolius et al., 2012; Prezio et al., 2013; Spencer et al., 2011), social services (Allen et al., 2011; Palmas et al., 2014; Waitzkin et al., 2011), and social support (DePue et al., 2013; Larkey et al., 2012; Studts et al., 2012; Tang et al., 2014; Wang et al., 2013).

Community-based health worker interventions have been shown to increase cancer screenings in some instances (Byrd et al., 2013; Castañeda et al., 2012; Nuño et al., 2011; Paskett et al., 2011; Studts et al., 2012), but not others (Castañeda et al., 2012; Holt et al., 2013; Kenya et al., 2014; Larkey et al., 2012). Community-based health workers have also been shown to help reduce risk factors for cardiovascular disease
(Allen et al., 2011; Daniels et al., 2012; DePue et al., 2013; Katula et al., 2013; Kenya et al., 2014; Prezio et al., 2013; Rothschild et al., 2014) with nonsignificant results noted in two recent studies (Islam et al., 2013; Lynch et al., 2014). Community-based health workers have also been effective in interventions regarding breast cancer screening (Wells et al., 2011), diabetes (Hunt et al., 2011; Shah et al., 2013), and medication adherence for patients with HIV and AIDS (Kenya et al., 2011).

Physicians’ perceptions of CBHWs seem to be influenced by their own cultural competence training. A recent study illustrated “providers and staff with greater cultural competence and preparedness have more positive expectations of community health workers interventions to reduce healthcare disparities” (Mobula et al., 2015, p.10). Given the effectiveness of community-based health workers, increased cultural competence training for physicians may strengthen the partnership between community-based health workers and physicians.

Bias and Stereotyping

There is increasing evidence that shows healthcare providers, as a group, hold several implicit biases and negative stereotypes against members of socially stigmatized and minoritized groups, such as people of color, ethnic minorities, individuals from low socioeconomic classes, sexual minorities, overweight and disabled individuals (Chapman et al., 2013; Stone & Moskowitz, 2011). Implicit race-based bias has also been shown to impact adults and children at similar rates (Johnson et al., 2017; Lang et al., 2016; Puumala et al., 2016). Stereotypes are “well-learned sets of associations between some trait and a social group” (Chapman et al., 2013, p.1504). Implicit bias is defined as “the
attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner” (Staats et al., 2016, p.14).

It is important to remember every individual is susceptible to bias and stereotyping, including patients (Persky et al., 2013; Thornton et al., 2011). However, research shows that physicians, who are often pressed for time and have the power to make clinical decisions based on incomplete information, are often trained to recognize group level information, potentially contributing to healthcare disparities for stigmatized groups who are often in need of specialized care due to social barriers (Chapman et al., 2013; Stone & Moskowitz, 2011).

It is important to note that neither stereotypes nor implicit biases in and of themselves have been proven to be direct causes of healthcare disparities; rather, they are contributing factors to the quality of patient-physician interactions, clinical treatment decisions, adherence to physician counsel and health outcomes for patients, particularly for minoritized groups (Hagiwara et al., 2016; Hall et al., 2015; Schaa et al., 2015; Zestcott et al., 2016). Research also indicates that minoritized patients perceive they are discriminated against by healthcare workers (Paradies et al., 2014). For example, a qualitative study on patient-doctor communication found that “physicians’ implicit pro-White bias on the Implicit Associations Test (IAT) correlated with Black patients’ perceptions of poorer communication and lower quality care” (Cooper et al., 2012, p. 979). “Positive” stereotypes can also have harmful impacts on the clinical encounter. For example, a recent research study found physicians in training were “less likely to diagnose Asian Americans with alcohol use disorder and would perceive them to have
fewer clinical symptoms than Whites due to the model minority stereotype” (Cheng et al., 2016, p.1).

Behar-Horenstein and Feng (2017) recently published results from a 2012 study of students, residents, and faculty members at a particular U.S. dental school using the *Deamonte Driver scenario study* to gauge attitudes about treating Medicaid patients. According to the Social Security Administration, Medicaid is “a jointly funded, Federal-State health insurance program for low-income and needy people that covers children, the aged, blind, and/or disabled and other people who are eligible to receive federally assisted income maintenance payments” (2018). The *Deamonte Driver scenario survey* was designed to assess factors that affect dentists’ participation in the Medicaid program (Behar-Horenstein & Feng, 2017). The survey itself was named for Deamonte Driver, a 12-year-old boy who died in 2007 after bacteria from an abscessed tooth migrated to his brain (Gavett, 2012).

Deamonte’s mother, Alyce, worked a variety of low wage jobs and did not have insurance, so she relied on Medicaid for dental care (Gavett, 2012). After multiple moves and stints in a homeless shelter, Alyce reported being dropped from the Medicaid program, navigating getting coverage again, and then having a hard time finding a dentist that would accept Medicaid (Gavett, 2012). Consequently, Deamonte never got treatment for the abscessed tooth, and after being hospitalized with a headache, he endured two brain surgeries before dying in February 2007 (Gavett, 2012). At the onset of the abscessed tooth, it is estimated that Deamonte could have been treated for eighty dollars
as opposed to the more than $200,000 burden his family would endure as a result of his
brain surgeries at Maryland Children’s Hospital (Gavett, 2012).

The purpose of the Behar-Horenstein and Feng (2017) study, which took place
from 2012 to 2015, was to “determine the likelihood that future dentists (students and
residents) and faculty members at one U.S. dental school would treat Medicaid
participants” (p. 1291). The study yielded strong response rates from all three participant
groups: 53.1% for full-time faculty, 88.9% for residents in the institution’s dental clinics,
and 95.5% for the institutions dental students (Behar-Horenstein & Feng, 2017, p. 1291).
The study’s results found students were “more likely to participate in caring for Medicaid
patients than the faculty and residents” (Behar-Horenstein & Feng, 2017, p. 1291).
Furthermore, the study found that, as a group, white male students had “stronger negative
stereotypes about Medicaid patients than the females and underrepresented minority
students” (Behar-Horenstein & Feng, 2017, p. 1291). Resident participants in the study,
as a group, had the strongest negative stereotypes about Medicaid patients. This study
was delimited to a single institution and its results should not be generalized to dissimilar
populations. However, the authors did suggest further research is needed into the “overall
cultural competency skills, beliefs, and attitudes of these faculty members and residents
that were less developed than those of the dental students, signaling a need for broad
educational and faculty development programs to fully prepare the future dental
workforce to care for these patients” (Behar-Horenstein & Feng, 2017, p. 1291).

A recent study involving 202 first year medical students at Johns Hopkins School
of Medicine revealed that 140 students held implicit preference for white people and 174
students held implicit preference for upper class individuals, as evidenced by the “IAT for race and a novel IAT for social class with 8 clinical assessment vignettes focused on pain assessment, informed consent, patient reliability, and patient trust” (Haider et al., 2011, p. 942). However, multivariable analyses for all vignettes found no significant relationship between implicit biases and clinical assessments (Haider et al., 2011).

Skills Specific to Cross-Cultural Communication

In a recent study conducted with medical students at Case Western Reserve University School of Medicine:

A substantial proportion of participating first and second year medical students did not believe that self-reflection regarding one’s own cultural biases is important to one’s performance as a physician, did not view an understanding of diverse patient cultural beliefs as important or very important in the provision of effective patient care, and were uncomfortable with and unsure about how to approach culture-related issues arising in patient care. (Loue et al., 2015, p. 1412)

Furthermore, an extensive systematic literature review involving 145 studies found that intercultural doctor-patient communications typically encountered four main challenges: language differences, differences in perception of illness and disease, different perceptions of the social component of health communication, and doctors’ and patients’ prejudices and assumptions (Paternotte et al., 2015).

Within healthcare, physicians have been directed to use certain techniques aimed at effective cross-cultural communication and negotiation. Generally, it is recommended that physicians slow down when they speak, use nonmedical language in explanations and avoid providing too much information, show or draw pictures to illustrate instructions and descriptions, and create a shame-free environment where patient
questions are encouraged (Weiss, 2007). Another popular method to reduce errors in cross-cultural communication is the teach-back technique, where physicians calmly ask the patient at the end of the appointment to repeat the instructions they have been given (Misra-Hebert & Isaacson, 2012).

Other popular models referenced by the American Association of Medical Colleges include the BATHE (Stuart & Leibermann, 1993), ETHNIC (Levin, Like & Gottlieb, 2000), LEARN (Berlin & Fowkes, 1983) and BELIEF (Dobbie et al., 2003) models, as well as the eliciting patient information and negotiating model (Carrillo et al., 1999), the ESFT model for communication and compliance (Betancourt et al., 1999), Kleinman’s questions (Kleinman et al., 1978), the model for cultural competency in health care (Flores, 2000) and the review of systems domain of the social context model (Green et al., 2002).

The BATHE model focuses on inquiring about the patient’s current life in four specific ways: their background, the affect of the medical issue on their life, asking what troubles the patient the most in their current state, understanding how the patient is handling their troubles and providing empathy for the challenges the patient is experiencing (Stuart & Leibermann, 1993). The BATHE method requires patience, listening and understanding—regardless of whether or not the physician can truly identify with what the patient is describing (Stuart & Leibermann, 1993).

The BELIEF model is designed to be a cultural interviewing tool (Dobbie et al., 2003). The model asks the patient to share their beliefs about health, specifically what caused their illness or problem. Next, the physician asks the patient why they believe the
illness or problem occurred when it did. Then, the physician attempts to learn more about and understand the belief/opinion of the patient. The physician then transitions into inquiring about how the illness or problem is impacting the patient’s life. After providing empathy, the physician then asks the patient their feelings to conclude the model. The BELIEF model is intentional about listening and trying to hear and understand the patient’s viewpoint, which is likely vested with cultural underpinnings that may or may not be familiar to the physician (Dobbie et al., 2003).

The eliciting patient information and negotiating model attempts to identify core cross-cultural issues within the meaning of illness and determine the social context that defines these meanings before beginning negotiating mutually agreeable treatment and appointment outcomes (Carrillo et al., 1999). At the core of this model is the importance that a physician authentically seeks to understand how each patient’s sociocultural background affects their beliefs and behaviors (Carrillo et al., 1999).

The ESFT model for communication and compliance, originally used for hypertensive patients, is an “individual, patient-based communication tool that allows for screening for barriers to compliance and illustrates strategies for interventions that might improve outcomes” (Betancourt et al., 1999, p. 482). The explanatory model investigates social risk for noncompliance, fears about medication and therapeutic contracting (or mutually agreed-upon behaviors), and playback (repeating information to make sure both parties are clear on what has been said) (Betancourt et al., 1999). The ESFT model for communication and compliance also relies heavily on listening skills, but it uniquely inquires, rather personally, into fears and social barriers the patient might be experiencing
or avoiding. A conversation of this depth requires a certain rapport, particularly for individuals from dissimilar backgrounds (Betancourt et al., 1999).

The ETHNIC (Levin et al., 2000) model asks the patient for an explanation of their illness, what treatments (if any) they have already tried, and whether or not they have sought advice from any folk or native healers. After these questions, the patient and physician negotiate and agree upon an intervention before discussing how to collaborate on the successful implementation of the intervention with the patient, family, friends, healers and other relevant parties. The ETHNIC model seeks to actively incorporate, rather than avoid, social capital (Levin et al., 2000).

Kleinman’s questions are concerned with “cultural constructions of clinical realities” (Kleinman et al., 1978, p. 251) and involve asking the patient what they think started their issue or problem, why the issue or problem began when it did, what impact the issue or problem has on their lives, what they fear about their issue or problem, and how severe/how long they believe the issue or problem will last (Kleinman et al., 1978). Kleinman’s questions then transition into care by asking the patient what kind of treatment they think they should receive and what results they hope will come from treatment. By taking time to understand how the patient has constructed their worldview around this issue or problem, the physician learns a great deal about the patient’s perspective regarding illness, which is likely impacted by sociocultural factors (Kleinman et al., 1978).

The LEARN (Berlin & Fowkes, 1983) model requires physicians to listen with sympathy and understanding regarding the patient’s perception of their medical issue
before the physician explains their perception of the problem. At this point, both parties can address and discuss their different perspectives before the recommended treatment is negotiated (Berlin & Fowkes, 1983). The exchange of information and the discussion of differences that are promoted in the LEARN model allow opportunities to build mutual trust and gain understanding of different perspectives (Berlin & Fowkes, 1983).

The model for cultural competency in health care (Flores, 2000) has five components: normative cultural values, language issues, folk illnesses, patient/parent beliefs, and provider practices. The model asserts that the physician “needs to be familiar with normative cultural values that may affect the health care of ethnic groups commonly encountered in the practice and to accommodate for such cultural values” (Flores, 2000, p.21). This familiarity requires outside research (Flores, 2000). The model also asserts that the “culturally competent clinician should use interpreter services for a patient with limited English proficiency, except when he or she is fluent in the patient’s primary language” (Flores, 2000, p. 21). However, recent research rebuts the notion of physician’s relying on their own interpretation skills in lieu of a professional medical interpreter (CLAS, 2018). The model also asserts that culturally competent physicians need to be familiar with common folk illnesses, beliefs, and practices (Flores, 2000).

When encountering folk illnesses with patients, physicians are guided to:

1) explain that you are aware that a given folk illness exists that doctors may not know about, 2) ask whether the parent or patient has ever heard of it, 3) ask whether the patient has the folk illness now, and 4) ask what treatment the patient is receiving for the condition. (Flores, 2000, p. 21)
The model for cultural competency in health care recommended that physicians avoid suggesting the discontinuation of “unharmful” folk remedies and instead integrate “harmless” folk remedies into treatment plans (Flores, 2000, p. 21). Next, the model suggests careful explanations of the “etiology and treatment rationale for a particular biomedical condition” but also notes that physicians should incorporate patient beliefs into treatment whenever possible, if not harmful (Flores, 2000, p. 21). Finally, the model notes that the “culturally competent clinician needs to maintain vigilance for ethnic disparities in screening, prescriptions, procedures, and health outcomes” (Flores, 2000, p. 21). The model for cultural competency in health care relies on familiarity more than other models referenced by the American Association of Medical Colleges.

The review of systems domain of the social context model (Green et al., 2002) urges physicians to investigate patients’ social stressors and support network, the impact of changes of environment, one’s “ability to influence the direction and course of events in one's life,” and an evaluation of the patient’s literacy (Green et al., 2002, p. 196). The review of systems domain of the social context model intentionally seeks information about the patient’s life and circumstances, in hopes of treating the whole individual within their unique context (Green et al., 2002).

Use of Interpreters within the Physician-Patient Relationship

The United States Department of Health and Human Services defines individuals with limited English proficiency (LEP) as “individuals who do not speak English as their primary language and who have a limited ability to read, write, speak, or understand English” (2018). According to the United States Census Bureau, over 25 million
Americans do not speak English very well and over 60 million Americans speak a language other than English within their home (2015a). Both Title VI and the United States Department of Health and Human Services regulations 45 C.F.R. Section 80.3(b)(2), “require recipients of Federal financial assistance from HHS to take reasonable steps to provide meaningful access to Limited English Proficient (LEP) persons” (HHS, 2018). The National Standards for Culturally and Linguistically Appropriate Services, sponsored by the United States Department of Health and Human Services, provides the following guidance on communication and language assistance: 1) language assistance should be provided at no additional cost for LEP individuals in order to facilitate timely access to all health care and services, 2) make patients aware, verbally and in writing in their preferred language, of the availability of language assistance services, 3) ensure the competence of professional medical interpreters and avoid the use of minors or untrained interpreters, and 4) print materials and signage should be available in commonly used languages around the service area (CLAS, 2018).

A recent qualitative study exposed themes regarding challenges expressed by patients with limited English proficiency as they try to access quality healthcare: “the ‘battle’ of managing language barriers, preference for bilingual providers, negative bias toward interpreted encounters, ‘getting by’ with limited language skills, fear of being a burden, and stigma and discrimination experienced by LEP families” (Steinberg et al., 2016, p. 1318).

As healthcare becomes more sensitive to diversity issues and concurrently becomes more patient-centered, researchers have advocated for the roles of interpreters
within the physician-patient relationship to be more active than passive during medical interactions (Hsieh et al., 2013). Furthermore, recent research indicates that through effective collaboration between the provider and the interpreter, active interpreters can have a positive impact on the quality of healthcare interactions (Butow et al., 2011; Jackson et al., 2011). In another recent study, when hospitalized patients with a language barrier were provided access to professional interpreters via bedside telephones, the same patients experienced decreased 30-day readmission rates (Karliner et al., 2017). Despite their positive impact on the quality of healthcare interactions and patient outcomes, recent research suggests less than 20% of patients with limited English proficiency are utilizing trained interpreters (Schenker et al., 2011).

A recent mixed methods research study on physicians’ views of the role of interpreters within clinical encounters found three generally agreed upon dimensions for interpreters: patient allies, health care professionals, and provider proxy (Hsieh et al., 2013). As a patient ally, physicians expected the interpreter to provide emotional support to patients, be familiar with the patient’s needs, help the patient seek information, be willing to assist patients outside of the medical encounter, have the ability to read nonverbal behaviors, have the ability to develop rapport between the provider and patient, and have the ability to help the patient navigate the healthcare system (Hsieh et al., 2013). As a healthcare professional, physicians expected interpreters to remain impartial, emotionally detached, offer literal translation, and employ medical knowledge and terminology (Hsieh et al., 2013). As provider proxy, providers expected interpreters to ensure quality of care, keep the medical interview on track, be familiar with the patient’s
medical history, and facilitate the physician’s agenda in medical encounters (Hsieh et al., 2013). Gender had a statistically significant impact on the provider’s views of interpreters, but the physician’s specialty, prior experience with interpreters, age, and native language did not have a statistically significant impact on the provider’s view of interpreters (Hsieh et al., 2013).

Contrary to the expectations outlined by providers in the survey, when interviewed, physicians expressed a desire for interpreters to limit their utility to word-for-word interpretations between the provider and the patient, effectively reducing interpreters to conduits as opposed to partners within the clinical encounter (Hsieh et al., 2013). A hierarchical relationship exists between interpreters and physicians, with many physicians expecting interpreters to situationally acquiesce to their agendas (Hsieh et al., 2013). In light of research that suggests providers hold conflicting expectations for medical interpreters, continuing education for both providers and interpreters regarding the complexity and the fluidity within the physician-interpreter relationship is warranted. Further research is needed on the contextual factors that influence physician’s perceptions, evaluations, and collaboration with interpreters.

Literature reveals several common errors in cross-cultural communication for healthcare providers who work with medical interpreters (Juckett & Unger, 2014; Karliner et al., 2017). Often, physicians address the interpreter directly as opposed to speaking directly to the patient (Juckett & Unger, 2014; Karliner et al., 2017). There is also a tendency to allow the interpreter to answer questions for the patient or dominate the conversation instead of utilizing sentence-by-sentence interpretation that directly
involves the patient (Juckett & Unger, 2014; Karliner et al., 2017). Research also indicates bi-lingual physicians should resist reliance on their own language skills and involve a qualified interpreter (Juckett & Unger, 2014; Karliner et al., 2017). Another common error is to seat the interpreter far away from the patient (Juckett & Unger, 2014; Karliner et al., 2017). Instead, it is recommended that the interpreter be sat next to or slightly behind the patient to encourage visual contact (Juckett & Unger, 2014; Karliner et al., 2017). Additional research is needed regarding investigating the impacts of different modes of interaction with medical interpreters (Price et al., 2012). As research into the role and effectiveness of medical interpreters continues, further inquiry is needed into contextual factors and their impact on trained interpreters as compared to family interpreters (Hsieh et al., 2013).

Deaf patients also encounter significant challenges when communicating with healthcare providers, risking further marginalization (Kuenburg et al., 2016). Interpreter services for deaf patients typically involve two-way videos, telephone typewriters, lip reading, closed captioning, or texting as alternative means of communication (Juckett & Unger, 2014).

**Self-Reflection on the Culture of Medicine**

Although significant research exists indicating the role of physicians’ implicit bias and its impact on healthcare discrimination, little research exists regarding interventions around implicit bias for healthcare providers (Burgess et al., 2017; Hall et al., 2015; Schaa et al., 2015; Zestcott et al., 2016). Many existing research studies revolve around a similar formulaic single-interaction intervention, often isolated within classrooms with a
purpose of increasing awareness of the presence of implicit bias, or with use of the IAT quickly followed by reflective exercises (Gonzalez et al., 2014; Hernandez et al., 2013; Zestcott et al., 2016). These interventions typically do not involve how to mitigate implicit biases as a physician (Burgess et al., 2017). In time-bound, high-stress situations, physicians have been shown to increase reliance on implicit bias, likely as a cognitive shortcut (Byrne & Tanesini, 2015; Johnson et al., 2016).

As it is unlikely that physicians will experience a large shift in the symptoms of time pressure, fatigue, stress and other emotions that are common within medical environments, research has shifted to interventions aimed at making physicians more self-aware of these emotions while making conscious efforts to mitigate their effects (Teper et al., 2013). Researchers have also begun exploring the neuroscience of implicit bias, more specifically what neural structures are activated when prejudiced thoughts are employed: the anterior cingulate cortex, e.g., the lateral prefrontal cortex, and the medial prefrontal cortex (Amodio, 2014).

Many researchers have posited plausible interventions to teach physicians how to actively identify and manage emotions, which may decrease their tendency to rely on implicit biases within clinical decision-making. One widely tested branch of interventions that have been proven to successfully lower implicit bias are Mindfulness Based Stress Reduction (MBSR) intervention programs (Burgess et al., 2017; Dobkin et al., 2016; Lueke & Gibson, 2015; Tang et al., 2015). A systematic review of 29 MBSR intervention programs found health care providers, after participating in MBSRs, self-reported “an
increase in their ability to identify and accept their own emotions, as well as to identify others’ emotions” (Burgess et al., 2017, p. 373; Lamothe et al., 2016).

In a focus group study of clinicians who completed MBSR intervention programs adapted for health care professionals, participants reported that the course increased their ability to be non-judgmentally aware of their thoughts, sensations, emotions and their ability to regulate their attention and emotions in clinical encounters (Irving et al., 2014). Similarly, a research study involving semi-structured interviews with 20 primary care physicians who recently completed a 52-hour mindful communication program elicited themes of reduced isolation when physicians shared their medical practice experiences with colleagues (Beckman et al., 2012). Participants also reported that additional training on honing mindfulness skills improved their ability to attentively listen and respond to patients more empathetically, as well as their ability to develop adaptive reserves (Beckman et al., 2012).

Another researched practice that can be used to provide physicians with the tools to mitigate implicit bias is individuating. Individuating involves conscious effort to focus on specific information about an individual, making it more salient in decision-making than reliance on a person’s social category information (Chapman et al., 2013). Perspective taking is another researched exercise that can be used to improve self-awareness regarding implicit bias within social interactions. Perspective taking is a conscious attempt to envision another person’s point of view (Chapman, et al., 2013; Todd et al., 2011; Todd et al., 2012; Wang et al., 2014). A recent study regarding a video game, FairPlay, allowed participants to experience subtle race bias through perspective
taking as a black graduate student, Jamal, working to obtain a science degree (Gutierrez et al., 2014). The results of the study found “gameplayers showed the least implicit bias, but only when they also showed high empathy for Jamal and high empathy only predicted lower levels of implicit bias among those who actively took Jamal’s perspective through gameplay” (Gutierrez et al., 2014, p. 371). Similar to perspective taking, drama therapy invites participatory theater and role playing in order to experience dissimilar viewpoints (Williams, 2016).

Research has indicated that meditation increases compassionate responses to individuals who are suffering (Condon et al., 2013) and reduces implicit bias against specific stigmatized groups of people, including, but not limited to, homeless individuals and African Americans (Kang et al., 2014; Parks et al., 2014; Stell & Farsides, 2016). Further inquiry is needed to see whether meditation increases compassionate responses to suffering among a population of physicians.

For students, dialogic spaces show promise as areas where students can reflect on their own biases. Kumagai and Naidu describe dialogic spaces “as sites for reflection in medical education” (Dao et al., 2017, p. 337; Kumagai, & Naidu, 2015). For example, in a recent study of 80 first-year dental students at the University of Florida, qualitative evidence suggests that reflective writing assignments can be used as an intervention tool that affects students’ mindfulness regarding unconscious stereotypes they may hold about others from dissimilar backgrounds (Isaac et al., 2015).
Bias Literacy and Cultural Competence in Healthcare

The Office of Minority Health broadly defines cultural and linguistic competence in health as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations” (2017). Within healthcare, physicians must expand their understanding of cross-cultural situations because “the clinical encounter is shaped by differences between the patient and clinician in social position and power, which are associated with differences in cultural knowledge and identity, language, religion and other aspects of cultural identity” (Kirmayer, 2012, p.149).

In light of power and other sociocultural factors at play within the clinical encounter, standard 7.6 of the 2018-2019 Functions and Structure of a Medical School, produced by the Liaison Committee on Medical Education (LCME), mandates that “the faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process (LCME, 2018, p. 11). The standard also specifies that the medical curriculum should address:

1) the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments, 2) the basic principles of culturally competent health care, 3) the recognition and development of solutions for health care disparities, 4) the importance of meeting the health care needs of medically underserved populations, and 5) the development of core professional attributes (e.g., altruism, accountability) needed to provide effective care in a multidimensional and diverse society. (LCME, 2018, p. 11)
Therefore, medical students and physicians must intentionally commit to an ever-evolving knowledge about cultural competence and its impact on patients, physicians, the physician-patient relationship, and clinical outcomes. However, coupled with this ever-evolving knowledge about cultural competence must be an equally unyielding and continual pledge to engage in bias literacy in order to address personal bias and mitigate its impact on clinical encounters, judgments, and outcomes.

Cultural Competence in Medical Education

Widespread disagreement exists regarding how to incorporate cultural competence into medical education (Dao et al., 2017; Stütz et al., 2015). As research regarding the social determinants of health increases, educators are tasked with how to infuse medicine, social sciences and the humanities into cultural competency curricula (Crenshaw et al., 2011). Often within biosciences, educators rely on “need to know” facts and categorizations about patient “types” (Kumagai, 2014). Supporters of this approach insist that facts and patient types are empirically grounded in research, while critics claim this perspective exoticizes patients and leads to “cultural safaris” that ignore other contextual factors that influence interactions (Hester, 2012; Metzl & Hansen, 2014).

Emerging research studies have focused on whether the delivery method of cultural competency training has an impact on participant attitudes. Carpenter et al. (2015) conducted a research study that found no significant difference between participating first-year medical students who received cultural competence training online as compared to those received training in a traditional lecture format (as measured by the Health Belief Attitudes Survey).
Kumagai and colleagues, building on the work of Paulo Freire (1968), have been largely credited with marrying the concepts of medical education and critical consciousness in dialogic learning (Kumagai & Naidu, 2015; Kumagai & Wear, 2014). Critical consciousness-based learning focuses on “a state of understanding how power and difference shape social structure and interaction” (Dao et al., 2017, p.335). Kumagai’s vision of critical consciousness-based learning is multidisciplinary, using medicine as a basis for clinical relevance, social science for the adaptation of social research and analytical frameworks, and humanities to address and mitigate assumptions and introduce new perspectives (Kumagai & Wear, 2014). Additionally, Kumagai asserts the importance of intersectional dialogic learning; in this case, students exploring the effects of medical and social disparities across internal, interpersonal, and structural domains (Kumagai & Wear, 2014; Sears, 2012). Research asserts institutional buy-in and continued training for faculty are crucial underpinnings to critical consciousness-based learning (Nazar et al., 2015; Sorensen, Norredam et al., 2017; White & Stubblefield-Tave, 2017).

In 2013, after a curricular reform process, the Perelman School of Medicine at the University of Pennsylvania launched a required course entitled Introduction to Medicine and Society (IMS) for all of the institution’s first-year medical students (Dao et al., 2017). Grounded in critical pedagogy, the Introduction to Medicine and Society course explores three domains of “critical consciousness” in clinical practice as it pertains to internal (relationship to self), interpersonal (relationships with patients, colleagues and peers), and structural interactions (relationships to society, government, culture, health systems, etc.)
Dao et al., 2017). In an effort to avoid over-categorization and stereotypes, the course “provokes students to engage with complex questions bridging the three domains” (Dao et al., 2017, p. 335). The framework of the *Introduction to Medicine and Society* course moves beyond linear delivery paradigms and into lifelong exploration of “reading the world” (Freire, 1968). Participants are encouraged to involve their reactions, emotions, and experiences into dialogue with one another in order to encounter new ways of reading the world. Eventually, these intersubjective encounters become transformative, creating room for new perspectives amidst cognitive dissonance (Dao et al., 2017).

The *Introduction to Medicine and Society* course is organized into three blocks. The first block addresses foundations in dialogic learning, culture, cultural humility, structural competency, and the experiences of suffering and illness. In the second block, participants discuss stratification, privilege and disparities within healthcare through the lenses of critical frameworks that make connections across internal, interpersonal and structural domains. In the third block, students explore professional issues in clinical care through a capstone project (Dao et al., 2017).

While in its infancy, “early experience suggests the IMS model successfully engages students and prepares future physicians to critically examine experiences, manage interpersonal dynamics, and structurally contextualize patient encounters” (Dao et al., 2017, p. 335). Mean rating scores from student course evaluations of the *Introduction to Medicine and Society* course were statistically significant each year when compared to the predecessor cultural competence course (Dao et al., 2017, p. 342). Additionally, faculty members have identified the course as “transformational, citing
positive effects on their awareness of sociomedical issues” (Dao et al., 2017, p. 342).

While preclinical courses on cultural competence are common, research indicates a need for longitudinal sociomedical learning (Neumann et al., 2011; Rosenthal et al., 2011).

Bias Literacy

Many practitioners and researchers agree that cultural competence alone will not mitigate the role of implicit bias in healthcare discrimination (Byrne & Tanesini, 2015). As physicians and medical educators continue to focus on patient-centered healthcare, the role of implicit bias must be considered in the broader issue of healthcare discrimination (Tucker et al., 2015; Van Ryn, 2016). Implicit biases are thought to impact behavior in two ways: first, “biases are activated in the presence of a member of a social group and then they are applied so they affect the individual’s behavior related to that group member” (Burgess et al., 2017, p. 372).

Emerging research considers implicit bias a remediable habit that can be mitigated through intentional bias literacy training (Carnes et al., 2012). In a recent study conducted at a Midwestern U.S. educational institution, the researchers’ goal was to promote institutional change through influencing the behaviors and attitudes of faculty members to promote gender equity in STEM fields through intentional workshops on bias literacy training (Carnes et al., 2012; Devine et al., 2017; Moss-Racusin et al., 2016; Pietri et al., 2017). All workshop participants who completed an evaluation indicated the workshop was at least “somewhat useful,” with 74% deeming the workshop “very useful” (Carnes et al., 2012). Furthermore, 186 participants committed to engaging in activities with the intention of promoting gender equity, and 162 participants
incorporated content specifically from the workshop within these activities (Carnes et al., 2012). While critics of bias literacy often point to evidence that the impact of bias literacy training fades quickly over time, contrasting evidence exists to support the notion that some bias literacy can have a lasting impact on the attitudes and behaviors of participants (Carnes et al., 2015). For example, “twenty-four participants were interviewed 4–6 months after attending the workshop; 75% of these not only demonstrated increased bias awareness but described plans to change—or had actually changed—behaviors because of the workshop” (Carnes et al., 2012, p.63).

Other habit-breaking interventions aimed at race bias have also been shown to be effective. In a 12-week longitudinal study, participants who received bias literacy intervention:

Showed dramatic reductions in implicit race bias and the intervention also led to increases in concern about discrimination and personal awareness of bias over the duration of the study as compared to participants in the control group who showed none of the above effects. (Devine et al., 2012)

Other studies involving educational interventions around gender bias in leadership have also been shown to influence faculty members’ perceptions of biases and lead to small, but positive changes on implicit biases regarding women in leadership (Girod et al., 2016).

Summary

The preceding literature documents disparities in American healthcare quality for racial and ethnic minorities and individuals from economically disadvantaged
backgrounds. Physician bias and stereotyping can contribute to healthcare disparities for marginalized groups. Community strategies can be employed to decrease healthcare disparities by advocating for and educating about behavioral changes and preventative care with physicians and community-based health workers (e.g., native individuals who are trusted in local communities). Bias literacy and cultural competence curricula, when used in tandem, can help clinicians become more self-aware of their own implicit biases and give them tools to mitigate the impact of these biases on their clinical encounters and judgments. Within the clinical encounter, skills specific to cross-cultural communication are helpful in bridging the communication gap between physicians and patients from dissimilar backgrounds. Finally, self-reflection on the culture of medicine and its pressures, stresses, and tendencies (which breed a reliance on time saving measures such as stereotyping) is necessary in order to personalize patient-centered healthcare that actively works to mitigate implicit bias and stereotypes while providing quality care to individuals of all backgrounds.
CHAPTER 3

METHODOLOGY

Despite increasing knowledge regarding sociocultural barriers to quality healthcare, current research concludes that race, ethnicity, and socioeconomic status are still social determinants of healthcare (Chestnov et al., 2014; Clegg et al., 2009; Holm, et al., 2017; Matthew, 2015; Wilf-Miron et al., 2010; Phelan et al., 2010). Research also indicates that physicians’ implicit biases, which often come from unrecognized social privilege, can contribute to sociocultural healthcare disparities (Arpey et al., 2017; Matthew, 2015; Wheeler & Bryant, 2017). Standard 7.6 of the 2018-2019 LCME Functions and Structure of a Medical School instructs medical school faculty members to ensure and deliver curriculum that facilitates the process of students recognizing and addressing gender and cultural biases, both internally and in their interactions with others (LCME, 2018, p.11). No one is immune from implicit bias (Boscardin, 2015; Burgess et al., 2004; Czopp et al., 2006; Ross, 2014; Vorauer & Sasaki, 2009). However, to begin addressing healthcare discrimination “healthcare providers must acknowledge how their handling of cultural differences impacts patients, and not presume that standards of objectivity, professionalism, and service immunize them from bias” (Holm et al., 2017, p. 360).

Further inquiry into how physicians are educated on recognizing and mitigating their own bias is needed (Boscardin, 2015; Burgess et al., 2004; Czopp et al., 2006; Ross,
Addressing cultural competence alone will not lessen the impact of implicit bias on clinical judgment; however, cultural competence and bias literacy can introduce medical students to ways in which they can become more self-aware of the influence of implicit bias and eventually work toward the mitigation of their own biases (Bernheim et al., 2008; Buchs & Mulitalo, 2016; Meyers et al., 2006). With continuing cultural competence and bias literacy education, physicians can play a role in decreasing healthcare discrimination, as research also indicates that physicians are likely to amend clinical judgments upon awareness of their own unconscious biases (Blair et al., 2011; Stone & Moskowitz, 2011). Bias literacy takes a proactive step forward on the awareness produced through cultural competence, shifting the responsibility toward individuals to identify and manage their biases, both seen and unseen, in interactions with others from dissimilar backgrounds (Ross, 2014; Sukhera & Watling, 2018).

The findings and recommendations from this study have been used to: 1) determine if medical school faculty members, course directors, clerkship directors and program directors equally integrate cultural competence and bias literacy learning objectives in their respective roles, and 2) gain more insight as to how medical school faculty members, course directors, clerkship directors, and program directors are integrating learning objectives related to cultural competence and bias literacy in their respective roles.
The primary audience for this study is academic leaders within medical institutions, including, but not limited to, administrators, deans, program directors, course directors, and clerkship directors. This study utilized a mixed method design for data collection and analysis.

Rationale for Research Study

Using a concurrent mixed methods design, the researcher collected and analyzed both quantitative and qualitative data using a single online questionnaire. The revised TACCT (Lie et al., 2008), was the focus of the quantitative component of the study, followed by a qualitative component encompassing three open-ended questions. The quan ⇒ QUAL research design approach allowed the researcher to use the quantitative portion of the study to elicit under-addressed learning objectives, which were later further explored through the qualitative portion of the study. Creswell et al (2004) state that mixed methods designs require the integration or mixing of datasets within some point of the research study (p. 7). Therefore, the researcher amalgamated the findings of both data sets in order to observe the research problem from different levels (Onwuegbuzie et al., 2010).

A mixed methods study was appropriate because the researcher was interested in determining if medical school faculty members, course directors, clerkship directors, and program directors equally integrate cultural competence and bias literacy learning objectives in their respective roles. Likewise, the researcher was further interested in understanding how medical school faculty members, course directors, clerkship directors,
and program directors, within their respective roles, are integrating learning objectives related to cultural competence and bias literacy.

**Research Questions**

The researcher designed research questions that align with the six domains represented on the revised Tool for Assessing Cultural Competence Training (TACCT): 1) health disparities, 2) community strategies, 3) bias/stereotyping, 4) communication skills specific to cross-cultural communication, 5) use of interpreters, and 6) self-reflection on the culture of medicine (Lie et al., 2008). Three additional research questions addressed how medical school faculty members, course directors, clerkship directors, and program directors in their respective roles perceived and engaged cultural competence and bias literacy learning objectives as a tool to equip medical students to address healthcare disparities.

1) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding health disparities?

2) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding community strategies?

3) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding bias and stereotyping?

4) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding communication skills specific to cross cultural communication?
5) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding the use of interpreters?

6) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding self-reflection on the culture of medicine?

7) How do medical school faculty members, course directors, clerkship directors, and program directors perceive cultural competence education can equip future physicians to address disparities in healthcare?

8) How do medical school faculty members, course directors, clerkship directors and program directors perceive their institutions address healthcare disparities through their academic curriculum?

9) How do medical school course directors, clerkship directors, and program directors, in their respective roles, equip future physicians to address disparities in healthcare?

Research Design

Crotty (1998) proposes that every research process has four tenets: epistemology, theoretical perspective, methodology, and methods (p. 5). In this section the researcher will detail and support the methods, methodology, theoretical perspectives, and epistemology that were used within this study.

According to Crotty (1998), epistemology refers to “the theory of knowledge embedded in the theoretical perspective and thereby in the methodology” (p. 5). The
researcher’s epistemology was informed by pragmatism. Pragmatism, a worldview that “arises out of actions, situations and consequences rather than antecedent conditions” allowed the researcher to use several approaches to understand the research problem (Creswell, 2013, p. 245). This study was concerned with the consequences of clinical judgment because of the influence of implicit bias within situational encounters.

According to Crotty (1998), the theoretical perspective is “the philosophical stance informing the methodology and thus providing a context for the process and grounding it in logic and criteria” (p. 5). The researcher’s philosophical stance was interpretive sociology. Interpretive sociology, or interpretivism, asserts “interpretation or understanding is the fundamental way that human beings participate in the world” (Schwandt, 2015, p. 167). Interpretivism asserts individuals are complex and can make meaning of the same reality in different ways. Therefore, gaining deeper insight into the meaning-making perspectives of respondents allowed the research to better understand the actions of the participants within the clinical encounter. Symbolic interactionism, a subset of interpretivism, suggests that individuals are actors who interact with each other based on the symbolic meaning of other people or things (Blumer, 1986). These ascribed meanings created through social interactions impact how individuals treat other things and people and language is used as a symbol of shared understanding (Blumer, 1986). The theoretical perspective of this study was concerned with how individual physicians interpret and understand ‘others’ (those from low socioeconomic backgrounds and racial and ethnic minorities) based on the way ‘others’ understand and participate in the world.
According to Crotty (1998), the methodology is “the strategy behind the choice and use of particular methods and linking the choice and use of methods to the desired outcome” (p. 5). As previously described, mixed methods is a methodology that allowed the researcher to explore the problem from two perspectives, both the prevalence and pedagogical integration of cultural competence and bias literacy learning objectives within the education of medical students.

According to Crotty (1998), methods are “the techniques or procedures used to gather and analyze data related to the research question” (p. 5). The quantitative method for this study was the statistical analysis of a questionnaire, specifically the revised TACCT (Lie et al., 2008), with demographic and faculty characteristics. The qualitative method for this study was three open-ended survey questions that focused on medical school faculty members, course directors, clerkship directors, and program directors’ perceptions of and engagement with the integration of cultural competence and bias literacy learning objectives into medical education as a tool to equip medical students to address healthcare disparities. Images in this document are presented in color.

In this study the quantitative dataset addressed the prevalence of learning objectives regarding cultural competence and bias literacy reportedly being implemented by medical school faculty members, course directors, clerkship directors, and program directors. The qualitative dataset addressed how medical school faculty members, course directors, clerkship directors and program directors are integrating learning objectives related to cultural competence and bias literacy within medical education.
Sample

The researcher imposed a delimitation that focused on medical school schools with active accreditations by the Liaison Committee on Medical Education (LCME) in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. LCME institutions were chosen because the LCME is the accrediting body recognized by Department of Education for programs leading to the M.D. degree in the United States and Canada. Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia were chosen because of their prominence among the lowest income counties/parishes in the United States (Bureau of Economic Analysis, 2018). Research indicates health disparities are strongly associated with an individual patient’s socioeconomic status (SES), with lower SES individuals experiencing increased likelihood of disparities in healthcare (Agargh et al., 2011; Clark et al., 2009; Janati et al., 2011; Nelson et al., 2002; Saydah & Lochner, 2010; Williams & Sternthal, 2010).

Participants

Participants for this study were medical school faculty members, course directors, clerkship directors, and program directors employed by medical schools with active accreditations by the Liaison Committee on Medical Education (LCME) in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Course directors, clerkship directors, and program directors
were selected as participants for this study because these roles have active input on what learning objectives encompass their medical school curriculum.

**Validation**

Guba & Lincoln (1994) detail four areas of trustworthiness to address in qualitative research: credibility, confirmability, transferability, and dependability. To establish credibility, the researcher triangulated the quantitative data from the questionnaire, the individual open-ended question responses, and the themes that emerged from the collective open-ended question responses. To address transferability, the researcher provided descriptions of the study site(s) so that results can be compared to similar environments. To address dependability, the researcher provided detailed descriptions of the research methodology so the process could be replicated in similar settings. To address confirmability, the researcher documented an audit trail, or a detailed and transparent account of the research study from start to finish, including the rationale for decision-making.

When addressing the validity of the quantitative portion of this study, Creswell and Plano Clark (2011) suggest contemplating the quality of the instrument, which also impacts the quality of the quantitative analysis drawn from the instrument. The Cronbach's alpha for the revised 42-item TACCT is $\alpha=.964$ (Lie, et al., 2008). The revised TACCT has shown high internal consistency and been tested for validity and reliability among subject matter experts (Lie et al., 2008). Additionally, Hesse-Biber and Nagy (2010) state that within mixed methods studies, “the juxtaposition of findings
from each type of dataset allow the researcher to enhance the validity of their findings” (p. 109).

**Subjectivity Statement**

The researcher of this study identifies as a person of color and considers herself an advocate for equity and inclusion for minoritized groups. The researcher has traveled extensively and works in a higher education institution. The researcher engaged in clarification of researcher bias, which, according to Glesne (1999), is “reflection upon your own subjectivity and how you will use and monitor it in your research” (p. 32). In order to mitigate the personal biases, the researcher engaged in peer review and consulted subject matter experts during the interpretation of the data (Creswell, 2013; Glesne, 1999; Hesse-Biber & Nagy, 2010).

**Institutional Review Board Approval**

The researcher obtained approval from Mercer University’s Institutional Review Board (IRB) on May 4, 2018, before the commencement of data collection. Informed consent was secured from all participants. The researcher maintained confidentiality by de-identifying both participants and institutions. Participants were de-identified through the use of pseudonyms and institutions were de-identified through descriptive characteristics. All data is stored in a password-protected server and will be destroyed after three years.
Data Collection

The informed consent form, revised TACCT (Lie et al., 2008), demographics and open-ended questions were administered via an email survey using Qualtrics. Emails were sent to medical school faculty members, course directors, clerkship directors, and program director’s email addresses that were publicly available on related institutional websites. The overall response rate is typically 30% for online surveys (Lodico et al., 2010).

Participants were instructed to indicate whether or not they addressed each concept of the revised TACCT within their course, clerkship, or program; participants were further instructed to indicate “not applicable” (NA) for any items they felt were not addressed. No additional information was given about the individual revised TACCT items and individuals were asked to evaluate them at face value.

The goal of the quantitative portion of this mixed methods study was to deliver an overview of the prevalence of cultural competence and bias literacy learning objectives as measured by medical school faculty members, course directors, clerkship directors, and program directors in their respective roles.

The three open-ended questions that were sent alongside the TACCT are: 1) How does cultural competence education equip future physicians to address disparities in healthcare? 2) How does your institution address healthcare disparities through their academic curriculum? 3) How do you equip future physicians to address disparities in healthcare? The goal of the qualitative portion of this mixed methods study was to gain
further understanding about how medical school faculty members, course directors, clerkship directors, and program directors, in their respective roles, perceive and integrate cultural competence and bias literacy learning objectives.

Data Analysis

For the quantitative portion of this study, revised TACCT responses were disaggregated by demographic and faculty characteristics including: gender, institutional role, specialty/department, race and ethnicity. Though individuals were given the option to select more than one institutional role, they were asked to respond to revised TACCT items for each institutional role separately, thereby upholding the assumption of independence. A one-way ANOVA was employed on each of the six domains of the revised TACCT (Lie et al., 2008) in order to determine if there is a statistically significant difference among the four groups (medical school faculty members, course directors, clerkship directors and program directors).

For the qualitative portion of this study, deductive and inductive coding were used to engage in thematic analysis of survey responses. Fereday and Muir-Cochrane (2006) describe thematic analysis as “a search for themes that emerge as being important to the description of the phenomenon and involves the process of identification of themes through careful reading and re-reading of data” (p. 82). Fereday & Muir-Cochrane (2006) describe a six-step sequence for data analysis: 1) developing the code manual, 2) testing the reliability of codes, 3) summarizing data and identifying initial themes, 4) applying the template of codes and additional coding, 5) connecting the codes and identifying
themes, and 6) corroborating and legitimating coded themes. A code manual was used to ensure credibility, as broad categories were formed a priori based on the study’s research questions and theoretical framework (Fereday & Muir-Cochrane, 2006). Next, the researcher summarized raw data from open-ended questions into codes. The researcher applied broad codes from the code manual and performed additional coding for themes, then connected codes and identified themes, and finally identified and clustered themes from previous codes into categories (Fereday & Muir-Cochrane, 2006).

Reporting Results

The large qualitative dataset delivered “rich and thick descriptions” of how medical school faculty members, course directors, clerkship directors, and program directors perceive and integrate cultural competence and bias literacy learning objectives in their respective roles (Creswell, 2013). The quantitative dataset presented numerical findings that displayed an overview of: 1) the prevalence of medical school faculty members, course directors, clerkship directors, and program directors who integrate cultural competence learning objectives within the education of medical students, and 2) what specific learning objectives are being measured when teaching about health disparities, community strategies, bias/stereotyping, communication skills specific to cross-cultural communication, use of interpreters, and self-reflection on the culture of medicine (Lie et al., 2008). The quantitative findings of this study will be presented through diagrams and graphical displays (Creswell & Clark, 2010). Results from the study are discussed in more detail in the fourth chapter.
Summary

This chapter provides an overview of the methodology, methods, epistemology, and theoretical perspective that were employed in this pragmatist study through the lens of interpretivism in order determine and explore if medical school faculty members, course directors, clerkship directors, and program directors equally integrate cultural competence and bias literacy learning objectives in their respective roles. This study used a concurrent mixed methods design to explore how medical school faculty members, course directors, clerkship directors and program directors, in their respective roles, perceive and integrate learning objectives related to cultural competence and bias literacy as a tool for equipping medical students to address healthcare disparities. The results of this study provided tangible examples for academic leaders of medical institutions on how to use pedagogy as an instrument to decrease health disparities by educating future physicians on how to become increasingly self-aware and mitigate their own personal biases as they deliver healthcare to their patients.

The design of this study utilized both quantitative and qualitative datasets in order to provide both vivid descriptions of the pedagogical methods employed when integrating cultural competence and bias literacy learning objectives as well as a numerical overview of the prevalence of cultural competence and bias literacy learning objectives within medical education across groups (medical school faculty members, course directors, clerkship directors, and program directors). The results and recommendations for this study can be used as source for academic leaders who want to improve or initiate
curricular changes that seek to address healthcare discrimination and disparities. The findings will also contribute to a growing body of knowledge about bias literacy curricula within health education programs and the importance of cross-cultural competence within the healthcare system.
CHAPTER 4
RESULTS

Although many medical school programs require cultural competence training, research indicates that a patient’s socioeconomic status (SES), race, and ethnicity can negatively influence the quality of care a patient receives from a physician, in part due to stereotypes, negative predispositions, and bias (Arpey et al., 2017, Clegg et al., 2009; Matthew, 2015, Wilf-Miron et al., 2010; Phelan et al., 2010). Gaining additional insight as to if and how medical school faculty members teach medical students to identify and mitigate their own implicit biases within clinical encounters may reduce current nationwide disparities in quality of healthcare for minoritized groups (Blair et al., 2011; Stone & Moskowitz, 2011).

This chapter recounts the research questions and hypotheses, questionnaire response rates, participant demographics, and findings. This mixed methods study was designed to determine if medical school faculty members, course directors, clerkship directors, and program directors equally integrate cultural competence and bias literacy learning objectives in their respective roles. This study also explored how medical school faculty members, course directors, clerkship directors, and program directors, in their respective roles, perceive and integrate learning objectives related to cultural competence and bias literacy as a tool for equipping medical students to address healthcare disparities.
The study was conducted online via a 55-item Qualtrics questionnaire comprised of 10 demographic questions, 42 revised TACCT (Lie et al., 2008) learning objectives specific to cultural competence and bias literacy, and three open-ended questions regarding physician perception and action around cultural competency and bias literacy in medical education.

Research Questions

Research questions for this study are listed below.

1) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding health disparities?

2) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding community strategies?

3) Do medical school faculty members, course directors, clerkship directors and program directors equally integrate learning objectives regarding bias and stereotyping?

4) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding communication skills specific to cross cultural communication?

5) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding the use of interpreters?

6) Do medical school faculty members, course directors, clerkship directors and program directors equally integrate learning objectives regarding self-reflection on the culture of medicine?
7) How do medical school faculty members, course directors, clerkship directors, and program directors perceive cultural competence education can equip future physicians to address disparities in healthcare?

8) How do medical school faculty members, course directors, clerkship directors, and program directors perceive their institutions address healthcare disparities through their academic curriculum?

9) How do medical school course directors, clerkship directors, and program directors, in their respective roles, equip future physicians to address disparities in healthcare?

Null Hypotheses

The null hypotheses for this study are listed below.

1) Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding health disparities.

2) Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding community strategies.

3) Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding bias and stereotyping.

4) Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding communication skills specific to cross cultural communication.

5) Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding the use of interpreters.
6) Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding self-reflection on the culture of medicine.

Respondents

A total of 4,617 medical school faculty members were emailed and asked to participate in the online questionnaire. Sixty-five (1.41%) emails were returned as undeliverable. Sixty-three (1.36%) respondents declined to participate in the study. Fifteen (0.32%) faculty members had retired or transitioned to another institution. One hundred-seventy-nine questionnaires were successfully returned, for a 4% response rate. The IBM SPSS version 25 multiple imputation procedure with five replicates was used to address missing data.

Demographics

Medical school faculty members currently employed at LCME-accredited medical schools in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia were invited to participate in this study. A descriptive analysis of the overall questionnaire responses demonstrated 134 participants (74.9%) identified as white, 21 (11.7%) identified as Black, 11 (6.1%) identified as Asian, 2 (1.1%) identified as mixed race and 11 (6.1%) declined to respond. 97 participants (54.2%) identified as male, 76 (42.5%) identified as female, 3 (1.7%) identified as genderqueer, and 3 (1.7%) declined to respond.

While completing the survey, participants were asked to self-identify their role at their respective institution. Participants were given four options for their role: 1) faculty
member, 2) course director, 3) clerkship director, and 4) program director. Participants were encouraged to select all roles that applied, and thus reported institutional roles may equal more than one hundred percent. One hundred fifty-three participants (85.5%) identified serving in one institutional role, 21 (11.7%) identified serving in two institutional roles, and 5 participants (2.8%) identified serving in three or more institutional roles. Though individuals were given the option to select more than one institutional role, they were asked to respond to revised TACCT (Lie et al., 2008) items for each institutional role separately, thereby upholding the assumption of independence. Thus, although 26 participants (14.5%) identified as serving in more than one institutional role, they responded to revised TACCT (Lie et al., 2008) items individually for each role held and there was no crossover among the four groups.

Faculty members are academic leaders in the education of medical students. Several institutional roles exist within medical education and these roles have varied levels of input into curricular decisions, evaluation, and assessment. Though differences in participant roles exist across institutions, responsibilities for course directors, clerkship directors, program directors, and medical school faculty members vary accordingly.

A program director has “authority and accountability for the operation of the program and broad responsibilities that encompass every aspect of postgraduate medical education training, including oversight of curriculum and evaluation, the learning environment, faculty, supervision of residents and fellows, and program management” (University of Wisconsin School of Medicine, 2014).
Clerkship directors are generally responsible for:

1) managing a full-time clinical experience that meets departmental and medical school learning objectives for the clerkship for every student, 2) creating a written set of core educational goals and objectives for the clerkship, with a plan for periodic review, 3) coordinating all clinical rotation schedules, 4) selecting materials that support the curriculum, such as didactics and readings, 5) outlining clear and specific expectations and standards for student participation in patient care at clinical sites, 6) creating an overall strategy for assessment of individual students and for programmatic evaluations linked to the goals and objectives, 7) selecting and creating examinations, if used, that address core goals and that are current, valid, and reliable, 8) submitting written final grades for each student, with a narrative noting goals met, strengths, and areas for continued work, 9) comprising a summary of students with academic difficulty and a clear strategy for remediation for each clerkship cycle, 10) reporting on the sufficiency and comparability of clerkship experiences at all teaching sites, and 11) assisting students applying to residency programs. (Pangaro et al., 2003, p. 218)

Course directors are generally responsible for:

The design, implementation, management, student assessment, and course evaluation in alignment with the medical student competencies, recommendations of the Curriculum Committee and its standing subcommittees, and pertinent national recommendations. Course directors are responsible for developing and maintaining the vision for the short-term and long-term development and activity of the course. This is a continuing effort that entails development, planning, reporting, evaluating, and monitoring to balance the discipline-specific interests with the interdisciplinary and overall curricular interests. Course directors must remain informed of trends and practices in medical education, pedagogy, technology, and administration. Planning involves consultation with faculty, staff and instructors, and administration. (Western Michigan University, 2016, p. 44)

Eighty-seven participants (48.6%) identified their institutional role as a medical school faculty member. Fifty-eight participants (32.4%) identified their institutional role as a course director. Forty-five participants (25.1%) identified their institutional role as a program director. Twenty participants (11.2%) identified their institutional role as a clerkship director.
Participants were medical school faculty members from twenty-seven identified LCME accredited institutions in the Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Participants
represented five major departments/specialties: 1) family medicine, 2) internal medicine, 3) surgery, 4) specialties, and 5) basic sciences.

Quantitative Findings

A one-way analysis of variance (ANOVA) was performed to examine if medical school faculty members, course directors, clerkship directors, and program directors equally integrate cultural competence and bias literacy learning objectives. A one-way ANOVA was an appropriate test because the researcher sought to compare the means of more than two groups and one independent variable to make inferences about a larger population. The independent variable presented four grouping factors: 1) medical school faculty members, 2) course directors, 3) clerkship directors, and 4) program directors. The dependent variable was the group’s revised TACCT domain mean (Lie et al., 2008). An alpha level of .05 was used for all analyses. The letter ‘M’ denotes sample mean and the letter ‘S’ denotes sample standard deviation.

Levene’s test for the homogeneity of variance was conducted for each domain of the revised TACCT (Lie et al., 2008) and indicated unequal variances were found in domains II ($F_{3,138} = 1.71$, $p = .036$), III ($F_{3,138} = 3.86$, $p = .011$) and VI ($F_{3,133} = 3.33$, $p = .022$). The homogeneity of variance assumption was violated, but sample sizes were roughly equal, thus there is a minimal effect on the Type I error rate.
<table>
<thead>
<tr>
<th>DOMAIN</th>
<th>Levene Statistic</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
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<td>Based on Mean</td>
<td>1.608</td>
<td>3</td>
<td>138</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Based on Median</td>
<td>1.407</td>
<td>3</td>
<td>138</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Based on Median and with adjusted df</td>
<td>1.407</td>
<td>3</td>
<td>135.980</td>
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<tr>
<td></td>
<td></td>
<td>Based on trimmed mean</td>
<td>1.709</td>
<td>3</td>
<td>138</td>
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</tr>
<tr>
<td></td>
<td></td>
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<td>3</td>
<td>135</td>
</tr>
<tr>
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<td></td>
<td>Based on Median and with adjusted df</td>
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<td>Based on trimmed mean</td>
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<td>3</td>
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<tr>
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<tr>
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<tr>
<td></td>
<td>Specific to Cross Cultural Communication</td>
<td>Based on Median</td>
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<td>3</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Based on Median and with adjusted df</td>
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<td></td>
<td>Based on trimmed mean</td>
<td>9.723</td>
<td>3</td>
<td>138</td>
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<td>Use of Interpreters</td>
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<tr>
<td></td>
<td></td>
<td>Based on Median</td>
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<td>3</td>
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<td>Based on Mean</td>
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<tr>
<td></td>
<td></td>
<td>Based on Median</td>
<td>.733</td>
<td>3</td>
<td>133</td>
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<tr>
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<td>Based on Median and with adjusted df</td>
<td>.733</td>
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<td></td>
<td>Based on trimmed mean</td>
<td>2.881</td>
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<td>133</td>
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</table>
Since the assumption of equal variance has been violated, it was appropriate to employ an adjusted F statistic by using the Welch and Brown-Forsythe test.

Table 4

Robust Tests of Equality of Means

<table>
<thead>
<tr>
<th>Domain</th>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
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<td>30.199</td>
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<td>3</td>
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<td></td>
</tr>
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<td>Specific to Cross Cultural Communication</td>
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<td>Welch</td>
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<td>3</td>
<td>26.119</td>
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<td><strong>Domain 6</strong></td>
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The F ratio for both the Welch and Brown-Forsythe tests were statistically significant for domains IV \( (p = .048, p = .039) \) and V \( (p=.025, p=.018) \) and thus a post-hoc test would be necessary.

Table 5

One-Way ANOVA

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A one-way analysis of variance (ANOVA) compared the revised TACCT (Lie et al., 2008) means of participants of four groups (medical school faculty members, clerkship directors, course directors, and program directors) across each domain. A statistically significant difference was found between groups (domain IV – $F_{(3,138)}$, $p < .05$; domain V - $F_{(3,122)}$, $p < .05$).

Domain I (Health Disparities) - $F_{(3,138)} = .663$, $p > .05$

The null hypothesis—medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning outcomes regarding disparities in healthcare—is accepted.

The specific learning objectives measured in domain I (health disparities) were: 1) define race, ethnicity and culture, 2) identify patterns of national data, 3) describe patterns of health disparities, 4) identify key areas of disparities, 5) discuss barriers to eliminating health disparities, 6) concretize epidemiology of disparities, 7) gather and use data, 8) critically appraise literature on disparities, 9) recognize disparities amenable to intervention, and 10) value eliminating disparities.

In their institutional role, program directors ($M=6.50; S=2.77$) were most likely to self-identify as integrating learning objectives relating to health disparities. In their institutional role, medical school faculty members ($M=6.23; S=3.34$) were the second most likely to self-identify as integrating learning objectives relating to health disparities. In their institutional role, course directors ($M=6.11; S=3.49$) were the third most likely group to self-identify as integrating learning objectives relating to health disparities. In
their institutional role, clerkship directors ($M=4.73; S=2.22$) were the least likely group to self-identify as integrating learning objectives relating to health disparities. 

Domain II (Community Strategies) – $F_{(3,135)} = 1.309$, $p > .05$

The null hypothesis—medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning outcomes regarding community strategies—is accepted.

The specific learning objectives measured in domain II (community strategies) were: 1) describe challenges in cross cultural community, 2) understand population health variability, 3) describe community-based elements, 4) identify community beliefs and health practices, 5) collaborate with communities, 6) describe methods to identify community leaders, 7) propose a community-based health intervention, and 8) value and address social health determinants.

In their institutional role, clerkship directors ($M=5.62; S=1.45$) were most likely to self-identify as integrating learning objectives relating to community strategies. In their institutional role, medical school faculty members ($M=4.78; S=2.69$) were the second most likely to self-identify as integrating learning objectives relating to community strategies. In their institutional role, program directors ($M=4.47; S=2.43$) were the third most likely group to self-identify as integrating learning objectives relating to community strategies. In their institutional role, course directors ($M=3.84; S=2.96$) were the least likely group to self-identify as integrating learning objectives relating to community strategies.
Domain III (Bias/Stereotyping) – $F_{(3,138)} = .676$, $p > .05$

The null hypothesis—medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning outcomes regarding *bias and stereotyping*—is accepted.

The specific learning objectives measured in domain III (bias/stereotyping) were:

1) identify how race and culture relate to health, 2) identify physician bias and stereotyping, 3) demonstrate strategies to address/reduce bias, 4) describe strategies to reduce physician bias, 5) show strategies to reduce bias in others, and 6) value the historical impact of racism.

In their institutional role, program directors ($M=4.20; S=1.85$) were the most likely group to self-identify as integrating learning objectives relating to bias/stereotyping. In their institutional role, medical school faculty members ($M=3.81; S=2.21$) were the second most likely group to self-identify as integrating learning objectives relating to bias/stereotyping. In their institutional role, clerkship directors ($M=3.77; S=1.59$) were the third most likely group to self-identify as integrating learning objectives relating to bias/stereotyping. In their institutional role, course directors ($M=3.34; S=2.60$) were the least likely group to self-identify as integrating learning objectives relating to bias and stereotyping.

Domain IV (Communication Skills Specific to Cross Cultural Communication) - $F_{(3,138)} = 2.943$, $p < .05$
The null hypothesis—medical school faculty members, course directors, clerkship directors and program directors equally integrate learning outcomes regarding *skills specific to cross-cultural communication*—is rejected.

The specific learning objectives measured in domain IV (communication skills specific to cross-cultural communication) were: 1) recognize patients’ healing traditions and beliefs, 2) describe cross-cultural communication models, 3) discuss race and culture in the medical interview, 4) elicit a cultural, social, and medical history, 5) use physician assessment tools, 6) elicit information in a family-centered context, 7) use negotiating and problem-solving skills, 8) assess and enhance adherence, 9) respect patients’ cultural beliefs, and 10) non-judgmental listening to health benefits.

In their institutional role, program directors (M=8.28; S=2.34) were the most likely group to self-identify as integrating learning objectives relating to communication skills specific to cross-cultural communication. In their institutional role, clerkship directors (M=7.40; S=2.88) were the second most likely group to self-identify as integrating learning objectives relating to communication skills specific to cross-cultural communication. In their institutional role, medical school faculty members (M=6.98; S=3.06) were the third most likely group to self-identify as integrating learning objectives relating to communication skills specific to cross-cultural communication. In their institutional role, course directors (M=5.69; S=4.25) were the least likely group to self-identify as integrating learning objectives relating to communication skills specific to cross-cultural communication.
Domain V (Use of Interpreters) – $F_{(3,122)} = 3.833$, $p < .05$

The null hypothesis—medical school faculty members, course, clerkship and program directors equally integrate learning outcomes regarding the *use of interpreters*—is rejected.

The specific learning objectives measured in domain V (use of interpreters) were:
1) describe functions of an interpreter, 2) list effective ways of working with an interpreter, and 3) identify and collaborate with an interpreter.

In their institutional role, program directors ($M=2.25; S=1.03$) were the most likely group to self-identify as integrating learning objectives relating to the use of interpreters. In their institutional role, medical school faculty members ($M=1.84; S=1.29$) were the second most likely group to self-identify as integrating learning objectives relating to the use of interpreters. In their institutional role, clerkship directors ($M=1.81; S=1.36$) were the third most likely group to self-identify as integrating learning objectives relating to use of interpreters. In their institutional role, course directors ($M=1.00; S=1.38$) were the least likely group to self-identify as integrating learning objectives relating to use of interpreters.

Domain VI (Self-Reflection, Culture of Medicine) – $F_{(3,133)} = .631$, $p > .05$

The null hypothesis—medical school faculty members, course directors, clerkship directors and program directors equally integrate learning outcomes regarding *self-reflection on the culture of medicine*—is accepted.

The specific learning objectives measured in domain VI (self-reflection on the culture of medicine) were: 1) describe the physician-patient power imbalance, 2)
recognize institutional cultural issues, 3) engage in reflection about own beliefs, 4) use reflective practices in patient care, and 5) value the need to address personal bias.

In their institutional role, clerkship directors ($M=3.72; S=0.92$) were the most likely group to self-identify as integrating learning objectives relating to self-reflection on the culture of medicine. In their institutional role, program directors ($M=3.65; S=1.85$) were the second most likely group to self-identify as integrating learning objectives relating to self-reflection on the culture of medicine. In their institutional role, medical school faculty members ($M=3.51; S=2.01$) were the third most likely group to self-identify as integrating learning objectives relating to self-reflection on the culture of medicine. In their institutional role, course directors ($M=2.99; S=2.18$) were the least likely group to self-identify as integrating learning objectives relating to self-reflection on the culture of medicine.
### Table 6

**Hypotheses**

| Research Questions                                                                                                                                                                                                                                                                                                                                 | Null Hypotheses                                                                                                                                                                                                                                                                                                                                 | Accept or Reject Null Hypotheses |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding *health disparities*?                                                                                                                                                                                                                       | Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding *health disparities*.                                                                                                                                                                                                 | Accept                          |
| 2) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding *community strategies*?                                                                                                                                                                                                                                         | Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding *community strategies*.                                                                                                                                                                                                 | Accept                          |
| 3) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding *bias and stereotyping*?                                                                                                                                                                                                                                                                  | Medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding *bias and stereotyping*.                                                                                                                                                                                                 | Accept                          |
| 4) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding *communication skills specific to cross-cultural communication*?                                                                                                                                                                                                                                                | Medical school faculty members, course directors, clerkship directors, and program directors do not equally integrate learning objectives regarding *communication skills specific to cross-cultural communication*.                                                                                                                                 | Reject                          |
Table 6 – Continued

5) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding the use of interpreters?

| Medical school faculty members, course directors, clerkship directors, and program directors | Reject |

6) Do medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding self-reflection on the culture of medicine?

| Medical school faculty members, course directors, clerkship directors, and program directors | Accept |

The F-test illuminated an overall difference existed between the means of the four groups in domains IV (communication skills specific to cross cultural communication) and V (use of interpreters). However, since the F-test is an omnibus test, post hocs were needed to determine the source of the difference among the groups. Multiple comparisons were performed in order to determine the source of the difference between groups in domains IV (communication skills specific to cross-cultural communication) and V (use of interpreters).
Table 7

Tukey’s Honestly Significant Difference Test

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<th>(J) Institutional Role</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
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**DOMAIN 4 Communication Skills Specific to Cross-Cultural Communication**

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Tukey’s Honestly Significant Difference (HSD) test was used to determine the nature of the differences between the groups. This analysis revealed that course directors
were less likely (M=5.69, S= 4.25) than program directors (M=8.28, S=2.34) to integrate learning outcomes related to communication skills specific to cross cultural communication (domain IV). Clerkship directors (M=7.40, S=2.87) and medical school faculty members (M=6.98, S=3.06) were not statistically significant from either of the other two groups in domain IV (communication skills specific to cross cultural communication). This analysis also revealed course directors (M=1.00, S=1.38) were less likely than both program directors (M=2.25, S=1.03) and medical school faculty members (M=1.84, S=1.29) to integrate learning outcomes specific to the use of interpreters (domain V). Clerkship directors (M=1.81, S=1.36) were not statistically significant from either of the other three groups in domain V.

Table 8

Descriptive Statistics

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**Most and Least Integrated Domains by Institutional Role**

When observing all six domains of the revised TACCT, course directors, as a group, were most likely to self-report integrating learning outcomes related to health disparities (M=6.11, S=3.49) and skills specific to cross-cultural communication (M=5.69, S=4.25). Course directors, as a group, were least likely to self-report...
integrating learning outcomes related to use of interpreters (M=1.00, S=1.38) and self-reflection on the culture of medicine (M=2.99, S=2.18).

When observing all six domains of the revised TACCT, clerkship directors, as a group, were most likely to self-report integrating learning outcomes related to community strategies (M=5.62, S=1.45) and communication skills specific to cross-cultural communication (M=7.40, S=2.87). Clerkship directors, as a group, were least likely to self-report integrating learning outcomes related to use of interpreters (M=1.81, S=1.29) and self-reflection on the culture of medicine (M=3.72, S=0.92).

When observing all six domains of the revised TACCT, program directors, as a group, were most likely to self-report integrating learning outcomes related to health disparities (M=6.30, S=3.49) and communication skills specific to cross-cultural communication (M=8.28, S=2.34). Program directors, as a group, were least likely to self-report integrating learning outcomes related to use of interpreters (M=2.25, S=1.03) and self-reflection on the culture of medicine (M=3.65, S=1.85).

When observing all six domains of the revised TACCT, medical school faculty members, as a group, were most likely to self-report integrating learning outcomes related to health disparities (M=6.23, S=3.34) and communication skills specific to cross-cultural communication (M=6.98, S=3.06). Medical school faculty members, as a group, were least likely to self-report integrating learning outcomes related to use of interpreters (M=1.84, S=1.29) and self-reflection on the culture of medicine (M=3.51, S=2.01).

Overall, faculty members across all institutional roles were most likely to self-report integrating learning objectives related to skills specific to cross-cultural
communication (M=6.97, S=3.29) and health disparities (M=6.17, S=3.34). Faculty members across all institutional roles were least likely to self-report integrating learning objectives related to use of interpreters (M=1.78, S=1.31) and self-reflection on the culture of medicine (M=3.45, S=1.97), though closely followed by physician bias and stereotyping (M=3.78, S=2.20).
Qualitative Findings

Thematic analysis was utilized to analyze the three open-ended questions regarding medical school faculty member’s perception of cultural competence and bias literacy as a tool to equip medical students to address healthcare disparities. Participants of all roles—course directors, clerkship directors, program directors and medical school faculty members—were each invited to complete three open-ended questions. Of the 179 participants who completed the quantitative portion of the study, 113 (63.13%) answered at least one of the three open-ended questions in the qualitative portion of the study.
Figure 6. Qualitative Component of the Study.

First Open-Ended Question

The first open-ended question asked participants the following: “How does cultural competence education equip future physicians to address disparities in healthcare?” Eight respondents (7.08%) did not answer the first open-ended question and 105 respondents (92.92%) answered the first open-ended question. One hundred respondents (95.24%) were able to describe several perceived benefits of how cultural competence education helps to equip future physicians to address disparities in healthcare. Eight positive categories in two themes emerged after inductive coding.
Findings indicate physicians often found connections between increasing student’s awareness of disparities (category one) and improved clinical interactions (category two) within the contextual knowledge of the existence of health disparities.

Figure 7. Benefits of Cultural Competence as a Tool to Address Disparities in Healthcare.

Theme One. Theme one encompassed four categories that referenced increased awareness of disparities in healthcare: 1) increased self-awareness, 2) increased understanding of the social and historical nature of health disparities, 3) error reduction and improved outcomes, and 4) competent and holistic care. Thirty-six participants expressed a belief that cultural competence education equips future physicians to address disparities in healthcare by increasing medical student’s awareness of these disparities.
One participant, self-identifying as a course director and program director in pediatrics, stated that “most people are good with good intentions. An awareness of disparities and why they exist can alone help mitigate some of the effects of bias.” Intentional engagement with societal health disparities may make addressing disparities in the delivery of healthcare a more salient topic, both for practicing physicians and, by extension, medical education as a whole. Another participant, a medical school faculty member in emergency medicine, reiterated the importance of increasing medical student awareness of healthcare disparities by stating, “It is a vital piece of the physician-patient relationship—we cannot always overcome the disparities in healthcare, but at the very least we need to be aware of them.” As future physicians become increasingly aware of the presence of disparities, this awareness may impact their delivery of healthcare by encouraging active mitigation of bias. Similarly, a medical school faculty member in obstetrics and gynecology stated, “Physicians are better able to practice patient-centered health care when they are aware of barriers and disparities across various ethnicities and cultures.” As future physicians are exposed to the lived realities of their patients, they may be more equipped to formulate relevant and realistic treatment plans—potentially improving patient health outcomes.

Another participant, a program director in internal medicine, illuminated the danger of failing to discuss health disparities in medical education by stating that cultural competence is “a large blind spot for many providers, so failing to educate and raise awareness causes propagation of implicit bias and disparity.” A medical school faculty member in oncology reiterated the importance of increasing medical student awareness of
healthcare disparities by saying that cultural competence “raises awareness of inequalities in patient care that result in unnecessarily worse patient outcomes.” Physicians expressed the increasing likelihood that bias and clinical error will persist if healthcare disparities are not addressed in medical education.

Participants expressed increased awareness of disparities were connected to: 1) increased self-awareness, 2) increased understanding of the social and historical nature of health disparities, 3) error reduction and improved outcomes, and 4) competent and holistic care. Participants noted that as future physicians became increasingly aware of the presence of disparities, they also became more aware of their own role in healthcare disparities, which prompted reflection upon and deeper understanding of the social and historical nature of health disparities. When engaged, physicians expressed hope that this knowledge would cause a reduction in unconscious clinical errors, improve patient health outcomes, and lead to increasingly competent and holistic care.

**Increased self-awareness.** Twenty participants expressed the belief that cultural competence education equips future physicians to address disparities in healthcare by increasing self-awareness for medical students. For sixteen participants, medical student self-awareness around implicit bias within the clinical encounter was a prevalent topic of discussion. A course director in pathology said “we all have biases that we cannot avoid, however recognizing them helps us lessen their impact on our decisions.” A medical school faculty member in family medicine stated cultural competence education provides future physicians the “tools to recognize bias and negotiate differences.”
For one participant, medical student self-awareness around their own personal cultural context and its impact on their clinical judgment was an important topic of discussion. A medical school faculty member in pediatric critical care wrote “learning about cultural competence allows us to recognize our own cultural scripts so that we may halt those scripts when they precipitate disparities in healthcare.” It is important to remember medical students are entering the conversation on cultural competence and bias literacy with several different levels of prior exposure to diversity. Acknowledgement of one’s own cultural background and upbringing may be a formative precursor to deeper discussions on cultural competence and bias mitigation.

For three participants, medical student self-awareness around their responsibility to mitigate their biases to correct disparities was a priority. A medical school faculty member in pediatrics stated that cultural competence education “introduces medical students to the reality of disparities and their impact upon the health of specific populations.” Another participant, self-identifying as a course director and clerkship director in internal medicine and clinical sciences, said that cultural competence education can help medical students “recognize personal and structural barriers and understand the use of community resources to help address these issues.” Similarly, a course director in family medicine stated that “simply by increased awareness of one’s own implicit associations, physicians can work to decrease these in themselves, particularly if they are willing to ally with patients in learning about other cultures and approaches to healthcare, including barriers to care.”
One physician expressed a desire for medical students to understand the power they have to actively work to correct healthcare disparities if they are indeed willing to continually become aware of and mitigate personal and structural barriers to healthcare equity. A medical school faculty member in geriatrics stated that “future physicians have a critical role in addressing bias. In a practical sense, healthcare outcomes and health system outcomes will be better when future physicians understand and address these concerns.” Participants valued the idea of future physicians taking ownership of the reduction of bias in the delivery of healthcare.

Increased Understanding of the Social and Historical Nature of Health Disparities. Forty participants expressed the belief that cultural competence education equips future physicians to address disparities in healthcare by increasing understanding around the social and historical nature of health disparities. Physicians expressed a desire for medical students to understand the complexity of healthcare disparities. A medical school faculty member in oncology said that “raising awareness of disparities is the first step, then systems level improvements would be needed to assure that institutional practices (often surrounding reimbursement and access to care) are not insurmountable barriers.” Similarly, a medical school faculty member in infectious diseases and internal medicine felt that cultural competence education allows medical students to “recognize some underlying reasons for health disparities.” Another participant, a medical school faculty member in obstetrics and gynecology, stated that “if you can look at health and wellbeing as more than just a reflection of a patient's personal ‘character’, but rather as a reflection of the environment in which they live/function, it
can cause you to realize that the root of the problem (and therefore the solution) may be a lot deeper than you think.” A course director in family medicine stated “disparities in healthcare are a reflection of systemic disparities in society and addressing them is a significant challenge.” While complex, many physicians expressed an inclination toward further understanding as opposed to falling victim to paralysis due to the pervasiveness of healthcare disparities.

One physician also pointed out the historical nature of many healthcare disparities. A course director in community health and preventative medicine stated that cultural competence education “provides awareness of how bias/discrimination/racism have historically contributed to health disparities and the role of the individual physician, the community/social environment and policies.” Another participant pointed out a lack of diversity in the academy, as an additional motivator for the importance of cultural competence in medical education. According to a medical school faculty member in urology, “because medical school classes are not sufficiently diverse, there is a need to educate the typical student about races and cultures with which they are not familiar.”

Two participants pointed to cultural competence education as an effective method for increasing understanding of healthcare disparities and equipping future physicians to practice equitable healthcare. A course director in pathology and medical education stated cultural competence education gives medical students a “framework in which to understand the historical origins of health disparities and examine biases.” A course director and program director in medical education stated that cultural competence
education teaches medical students “to look at the ‘big picture’ and to be more aware of how healthcare is applied.”

Explicitly, a medical school faculty member in internal medicine stated that medical students are equipped to address disparities in healthcare “through education about disparities and physician bias throughout their curriculum and education.”

Similarly, a medical school faculty member in pediatrics said:

Individuals with greater cultural competence are better able to understand factors that lead to disparity in healthcare, examine their own role in such disparities, and understand the patient’s role in such disparities. This puts them in a better place to try to create meaningful solutions with respect to disparities.

Physicians expressed a desire for a thoughtful and intersectional understanding of the historical, structural, and practical implications of healthcare disparities for future physicians.

*Error reduction and improved patient outcomes.* Clerkship directors, medical school faculty members, and program directors expressed the belief that cultural competence education equips future physicians to address disparities in healthcare by reducing errors in clinical judgment that can improve patient outcomes. One participant said that poor communication could lead to ineffective treatment. According to a clerkship director in internal medicine, “cultural competence education should enable future physicians to gather information from and more effectively advise and treat patients who are medically underserved.” Similarly, a program director in pathology stated that “cultural competence education improves communication and thereby improves the application of appropriate care and avoidance of errors.” Another
participant felt that a lack of self-awareness could lead to ineffective treatment. A medical school faculty member in a surgery department stated that cultural competence education “gives future physicians insight about their own perceptions and biases which could influence how they treat, label and care for patients.” Improved adherence is predicated, in part, upon cultural competence.

Three participants pointed to cultural competence education as a tool to investigate claims of non-compliance. A program director in cardiology stated, “I believe it would reduce some of the frustration that occurs regarding ‘non-compliance’ patient’s declining care, etc.” Another participant noted the danger of acting on biased information, such as group-level generalizations, as the main source to make clinical decisions. A program director in internal medicine and pediatrics said: “There is not a one size fits all to medicine, every patient is unique and it is important to meet patients where they are and not assume based on one liners that are biased within themselves.”

*Competent and holistic care.* Seven course directors and medical school faculty members expressed the belief that cultural competence education equips future physicians to address disparities in healthcare by encouraging more *competent and holistic care.* A course director in endocrine/physiology stated that “cultural competence education equips physicians with the knowledge, skills, and attitudes need to provide quality healthcare to all patients.” Two participants included an emphasis on the necessity of a physician to provide quality care across a diverse spectrum of patients. Another course director in microbiology/virology commented that “cultural competence provides knowledge on the habits, practices, values, ecosystem and aspirations of a given
community. A physician can use this knowledge to discern causes of health conditions, and specialized approaches to address these conditions.”

Some participants even noted that holistic care is predicated upon cultural competence. As a medical school faculty member in a surgery department remarked, “medicine is not just about treating a disease. It is about treating the whole person and until we address the intersectionality of health, disease, race, socioeconomics, and gender, we will never succeed in truly improving health or healthcare.” The importance of continued study of the intersectionality of social determinants of health was consistent among participants. This perspective moves the physician-patient encounter from transactional to continuous.

Theme Two. Theme two encompassed four categories related to improved clinical interactions. Eleven participants expressed the belief that cultural competence education equips future physicians to address disparities in healthcare by improving cross-cultural communication. A medical school faculty member in pediatrics stated that cultural competence education can:

Help future and young physicians overcome ways that others may perceive the words they say differently than intended. This effect may decrease the transfer of information they intended for restoration of the patient's wellbeing and health. Being more culturally sensitive and competent may prevent them putting up barriers to understanding.

Reducing misunderstandings can help improve communication between the physician and the patient and therefore may improve patient health outcomes.
Similarly, delving into how each party communicates with each other can help eliminate unnecessary barriers to improved health outcomes. A medical school faculty member in medical education stated:

Excellent communication is a precondition for successfully addressing disparities in healthcare. Without communication that can be understood by both sides (i.e., words, manner, tone and phrasing are handled in a way that does not create unnecessary barriers between speakers), neither the system nor the results can improve.

Participants valued communication as a method of developing mutual respect between physicians and patients within the clinical encounter. Mutual respect may be a useful tool for improving patient compliance.

*Specialized care.* Fourteen medical school faculty members expressed the belief that cultural competence education equips future physicians to address disparities in healthcare by providing specialized care. A medical school faculty member in pediatrics stated that “cultural competence education is an essential component of health care and promotion of public health. It enables physicians to transcend solipsism and understand what particular patients and groups of patients need.” Similarly, a medical school faculty member in medical oncology felt that “having a deep understanding of different cultures enables future physicians to work with patients to address disparities, personalize medicine and find creative solutions to optimizing patient health and healthcare.” Patient-centered clinical judgment is predicated upon a relational orientation to cultural competence and bias literacy.

*Cultural sensitivity.* Twelve participants expressed the belief that cultural competence education equips future physicians to address disparities in healthcare by
cultivating *cultural sensitivity*. For one participant, this cultural sensitivity was birthed in humility. As one program director in palliative medicine wrote, “we must meet patients and families where they are, rather than expecting them adapt to our models and language and culture in medicine.” For another, this cultural sensitivity was predicated upon understanding differences. This was echoed by a medical school faculty member in internal medicine: “You can't address disparities in health care if you don’t at the minimum identify individual, family and group, ethnicity differences that are of concern to the people that are a part of these groups.” Practically, participants also seemed to understand the increasing impetus for *cultural sensitivity* within the physician-patient encounter. A medical school faculty member in pediatrics stated that “our nation has a growing population of minorities. Culture is integral to a patient’s healthcare and therefore should be used to determine the best therapy for the patient.”

Two participants highlighted the importance of compassion within physician-patient interactions. One individual, self-identifying as both a course director and clerkship director in family medicine, said, “Cultural competence education at it’s best trains the learner to value the inherent worth and dignity of each patient, and to approach each healing intervention from patient-centered point of view.” Another course director, in pathology, stated, “I believe that an awareness of different belief systems helps healthcare workers to interact with patients and their families in a more effective and compassionate manner.”

One participant indicated that cultural competence could eventually lead to a desire for increased patient outcomes and understanding. One individual, self-identifying
as a course director, clerkship director, and program director in infectious diseases, felt that cultural competence education equips future physicians to address disparities in healthcare by helping physicians to “better identify and understand individual and community needs, tailor interventions to maximize acceptance, adherence, and effectiveness, and to instill a sense of advocacy.”

Establish trust. Seven participants expressed the belief cultural competence education equips future physicians to address disparities in healthcare by establishing trust between the physician and the patient. One participant noted the importance of establishing trust on many levels. A medical school faculty member in emergency medicine illustrated the importance of establishing trust within the broader health care system:

It is an essential component to appreciate and understand the dynamics of patient centered understanding of their health and disease status. Recognizing the varying cultures from which patients come from equips us with opportunities for shared decision-making which could lead to trust and adherence in the health care system.

The concept of establishing trust, which requires an understanding of the individual patient’s perspective on their health, is noteworthy.

Another participant, a medical school faculty member in pediatrics, underscored the importance of establishing trust between the physician and the patient on a community level by stating, “Physicians must be trusted and respected by patients and the public at large in order to be a force for good in society and to lead positive change as pillars of the community.” The reputations of physicians, and consequently their
effectiveness as community activists, are predicated upon perceived trustworthiness within the neighborhoods they serve.

Another participant, a medical school faculty member in internal medicine, noted the importance of establishing trust between the physician and the patient on an interpersonal level: “Cultural competence education is essential for establishing therapeutic relationships with patients from cultural backgrounds different from one’s own. Building trust between physicians and patients facilitates two-way communication.” In order for physicians to move from outreach (one-way communication) to contact (two-way communication), trust must be established and maintained within interpersonal encounters.

Finally, another participant, a program director in pathology, illustrated the importance of establishing trust between the physician and the patient to improve patient outcomes by stating, “Cultural competence education allows physicians to gain the trust of the patient to leverage the patient’s background to improve care.” As physicians work to establish and maintain the trust of their patients, they will have more tools they can utilize to offer increasingly personalized and effective care.

Mutual respect. Four participants expressed the belief that cultural competence education equips future physicians to address disparities in healthcare by creating mutual respect between the physician and the patient. A participant who identified as both a course director and clerkship director in anesthesiology stated that cultural competence education:
Allows the provider to function more effectively in caring for the patient. It provides a safer environment for the patient to seek care. Issues that otherwise might not be mentioned can be brought up and discussed. For both parties, there is enhanced mutual respect and a better chance for a better outcome.

When mutual respect is present, physicians can expect patients to be more forthcoming and compliant.

A participant who identified as both a course director and a program director in family medicine stated that cultural competence helps future physicians “understand the need for humility and address each patient as a unique individual trying to engage. And as partners, collaborating to improve their health, who identify barriers and together find ways to mitigate.” When patients are invited into shared decision-making, mutual respect is cultivated within the physician-patient relationship.

Neutral and negative perceptions. While the previous section focused on positive perceptions of cultural competence education as a tool to equip future physicians to address disparities in healthcare, this section will explore neutral and negative perceptions of cultural competence education as a tool to equip future physicians to address disparities in healthcare. Five participants (4.76%) perceived uncertain or negative influences regarding how cultural competence education can equip future physicians to address disparities in healthcare. Two participants—a white female identifying program director in surgery and a male identifying faculty member who did not identify his race, ethnicity, or specialty—were both “unsure” if cultural competence education equips future physicians to address disparities in healthcare. Another participant, a white male identifying course director and program director in family
medicine, stated that cultural competence education “might lead to better compliance and better communication.” Another participant, a genderqueer-identifying medical school faculty member in otolaryngology who did not provide their race or ethnicity, remarked, “I am unsure if cultural competence education should be a focus of medical training.”

One participant, a white male identifying program director in internal medicine and nephrology, stated that cultural competence education “does not” equip future physicians to address disparities in healthcare. Another white male medical school faculty member in nephrology stated that “cultural competence training can sometimes just crystallize prejudice.” Participants did not elaborate further on their responses. A limitation of this study is that in-person interviews may have increased understanding of the perspectives of these participants.

Research provides evidence of so-called “rebound effects,” in which individuals, after stereotype suppressors are removed, often return to stereotypical thoughts and sometimes more extremely (Macrae, Bodenhansen, Miine & Jetten, 1994). As such, it is recommended that interventions focus on the stereotype itself rather than suppression of the stereotype (Galinsky & Moskowitz, 2000). Consequently, interventions focused on stereotype suppression may have a more negative impact on participants than interventions that focus on the stereotype itself. Cultural competence, then, may be less useful than an intervention tailored to specific pathologies with increased incidence rates for stigmatized populations.
Second Open-Ended Question

The second open-ended question asked, “How does your institution address healthcare disparities through their academic curriculum?” Four participants (3.54%) did not respond to this question and 109 participants (96.46%) did respond to this question. Two themes emerged: 1) when the institution addressed healthcare disparities through their academic curriculum and 2) how the institution addressed healthcare disparities through their academic curriculum.

*When.* Three categories emerged regarding when institutions addressed healthcare disparities through their academic curriculum: 1) the topic is unaddressed, 2) the topic is addressed in all 4 years of the curriculum, and 3) the topic is addressed in two or less years of the institution’s curriculum. Of the 109 participants who responded to this question, five participants (4.58%) stated that their institutions were not addressing healthcare disparities through their academic curriculum (category one). Twenty-six participants (23.85%) explicitly stated that their institution addressed healthcare disparities throughout all four years of the academic curriculum (category two). Sixty participants (55%) identified cultural competence topics were present in two or fewer years of their institution’s academic curriculum (category three). Eighteen participants (16.51%) did not specify when their institution addressed healthcare disparities through their academic curriculum.

*How.* Six categories emerged regarding how institutions addressed healthcare disparities through their academic curriculum: 1) formal interventions, 2) informal interventions, 3) a mix of formal and informal interventions, 4) lack of faculty knowledge
regarding how institution addresses healthcare disparities through their academic curriculum, 5) continuing education for faculty, and 6) faculty dissatisfaction regarding how health disparities are addressed by institutions. Eighty participants (73.39%) reported that their institution used formal and informal didactic and clinical exercises related to cultural competence at some point in the medical school curriculum. Twelve participants (11%) did not specify whether their institution addressed cultural competence formally or informally.

![Figure 8. Institutional Engagement with Cultural Competence Interventions.](image)

Formal interventions. Specific, formal interventions were identified by 67 participants (61.47%), primarily between M1 and M2. Reported formal exercises included: lectures, small group sessions, reflections, patient panels, integration into problem-based learning and practice of medicine courses, grand rounds, experiential learning within impacted communities, simulations, community-based work, targeted programming such as retreats and workshops often led by committees on diversity and
inclusion, case-studies, guided discussions in the reading room, and the use of the Objective Structured Clinical Examination.

Informal interventions. Informal interventions alone were reported by 13 participants (11.93%), primarily in M3 and beyond. The following informal exercises were reported: social clubs, learning communities, community partnerships, dissemination of continuing education opportunities, role modeling on the wards, and mindfulness. Two participants identified the transformative power of informal interventions. As a medical school faculty member in pediatrics stated, “The deep learning happens in the informal curriculum that emanates from the multitude of interpersonal interactions among learners, teachers, and patients. That’s where simplistic progressive social justice theory meets the nuances and caveats of ontology.” Similarly, a medical school faculty member in medical education said:

Given the multifactorial nature of the problem of disparities in healthcare, our aim is to ensure our students not only master ‘facts’ as known today, but become master adaptive learners, capable of discerning new truths. Our program also develops and fortifies the students’ competency in ethics; we expect our students will continue to be inspired to develop new solutions and advocate for those whose interests and needs are not often the focus of the healthcare system as it currently exists.

The role of ethics in clinical judgment, particularly for stigmatized groups, is essential in order to address disparities in healthcare delivery. Competency in ethics allows physicians to engage the lived realities of their minoritized patients, which is often much more complex than simulated exercises.

Mix of formal and informal interventions. Seventeen participants (15.60%) reported a mix of formal and informal interventions.
Lack of faculty knowledge regarding how the institution addresses healthcare disparities. Twelve participants (11%) stated that they did not know how their institution addressed healthcare disparities through academic curriculum.

Continuing education for faculty. Three participants identified continuing education of faculty members as another medium through which their institutions addressed healthcare disparities in their academic curriculum. A course director and program director in obstetrics and gynecology stated:

Many of our faculty have a strong interest in research on racial equity, health and healthcare disparities. We formally address it during didactic lectures, and informally address it at the bedside when teaching. Many of us have also published on this topic and have ongoing research studies intentionally designed to measure these differences.

Another participant noted increased emphasis on cultural competence in medical education over the past few years.

Dissatisfaction among faculty about how health disparities are addressed by the institution. Seven participants at four institutions explicitly indicated dissatisfaction with how their institution addressed healthcare disparities through their academic curriculum. Each of these participants raised valid concerns regarding the formalization and assessment of cultural competence education. Six of the seven individuals who expressed this dissatisfaction were employed at three institutions in a single Southeastern state.

A course director in microbiology and virology at one institution stated, “My institution has courses and evaluative mechanisms to educate professional students on cultural competency. However, the level of emphasis and allocated resources are barely adequate.” A medical school faculty member at the same institution, however, gave this
response: “We have talked about it, but did nothing.” This disparity in perceived action from two individuals at the same medical institution is indicative of potential widespread variation in expected institutional engagement with the topics of cultural competence and bias literacy.

A course director in family medicine at a separate institution stated:

Our institution has a mission to produce physicians who will practice primary care in rural and underserved communities. Recognizing health care disparities should be woven into all we do. That being said, I believe more could be done to educate medical students regarding cultural competence for diverse populations.

The connection of cultural competence to institutional mission is noteworthy as medical schools prepare the next generation of physicians to provide quality healthcare to all people.

A medical school faculty in urology at different institution stated, “I believe there are a few lectures in the basic sciences, but there isn’t a dedicated effort as far as I’m aware. And the class is certainly not racially diverse.” A medical school faculty member in pediatrics at the same institution stated, “My institution has a formal curriculum that ‘checks all the boxes’ on the healthcare disparities list. It is an impeccably progressive, politically correct list, which means it’s fine as far as it goes, but it’s way too philosophically shallow.” Participants in this institution raised concerns about the tension between maintaining a politically correct appearance versus utilizing a practical and philosophically sound curriculum for how, and with what frequency, an institution prepares future physicians to address healthcare disparities, especially considering a lack of compositional diversity in most classes of medical students.
A medical school faculty member in surgery from another institution stated:

I cannot comment on written curriculum. In terms of the unwritten clinical curriculum, the institution does a poor job. I see patients treated differently very often according to SES and race. I find it strange that patients are often labeled according to their race when often times it has NOTHING to do with their presentation. Having worked in different areas of the country, I find this more prevalent in the South.

Role modeling, though a common method of instruction for bias literacy and cultural competence, is often inconsistently applied.

A course director in biochemistry at another institution stated, “Although these topics are delivered, assessment of these elements is often lacking and this is key to determining how effective the delivery is.” This participant raises perhaps the most pervasive issue regarding the implementation of a formal cultural competence curriculum in medical education: how to create consistency in how information is disseminated and assessed. Assessment is an important aspect of accountability, but so too, is effectiveness. Without standardization, it will be impossible to measure the effectiveness of cultural competence interventions.

Third Open-Ended Question

The third open-ended question asked, “How do you equip future physicians to address disparities in healthcare?” Nine participants did not respond to this question (7.96%) and 104 participants (92.04%) did respond to the question. Ninety-seven participants (93.27%) discussed how they equip future physicians to address disparities in healthcare in their respective role. Fifty-one initial codes were compiled into five themes:
1) critical appraisal of literature, 2) role modeling, 3) explication of social barriers, 4) specific interventions, and 5) experiential learning within impacted communities.

Figure 9. Cultural Competence Interventions Instituted by Faculty Members.

Critical appraisal of literature. Thirty participants (30.93%) noted the use of critical appraisal of literature as a standard to frequently reiterate the social and scientific presence of healthcare disparities. A course director in physiology underscored the importance of the “recognition and understanding of specific pathologies that have increased incidence in certain populations/cultures.” A medical school faculty member in pediatrics stated that they equip future physicians to address disparities in healthcare by “discussing it constantly, giving examples, having them read articles about it and making them aware of it on a daily basis.” Physicians remarked they disseminated specific
examples from scientific articles providing evidence of healthcare disparities and often “suggested possible remediation from published documents.”

One participant noted their emphasis on the transferability of findings in many medical trials. A course director and clerkship director in anesthesiology stated:

I specifically clarify for students that many studies have been conducted on white males. Consequently, information may not extrapolate directly to females, non-whites and specific ethnic groups. In addition, in our field of anesthesiology, we frequently received disadvantaged patients (poor white, minority community, etc.) who have had inadequate medical care and therefore have a multitude of untreated medical conditions which we have to manage acutely.

This participant understood the life-saving importance of cultural competence.

Another stated that they employ the critical appraisal of literature across many disciplines. A course director in family medicine said that “equipping future physicians to address such disparities requires non-traditional approaches to medical education, including humanities-based training along with rigorous work in population health, epidemiology, public health, etc.” Overall, participants expressed a desire to make healthcare disparities scientifically and socially relevant for their students by employing practical examples across a wide array of literature and addressing assumptions about the extrapolation of findings to medically underserved groups.

Role modeling. Seventeen participants (17.53%) responded that they equip future physicians to address disparities in healthcare through role modeling. A medical school faculty member in pediatrics stated, “I first help them learn to see the disparities. Then, if a bias comes up in conversation, we work to recognize that and discuss how different ways of life are okay and how to work best with them for the best health care.” Nine
participants noted delivering intentional feedback when observing trainees with patients and providing direct observation of skill development in interactions with patients. A medical school faculty member in anesthesiology said that “in addition to formal coursework, it is important to recognize disparities when they occur clinically and point them out to the student in addition to steps that can be taken to help remedy the situation.”

One participant noted the importance of teaching skills to identify the source of disparities. A clerkship director in family medicine said that they equip future physicians to address disparities in healthcare “by emphasizing its existence and impact, by pointing out factors that contribute and by encouraging students to nurture a personal commitment to addressing disparities.” Participants seemed to emphasize the desire to demystify bias, regarding it as a regular, though addressable, aspect of the clinical encounter. Another concept was the participants’ desire to delve deeper into claims that patients were non-compliant, investigating whether social barriers were persisting for impacted patients. A program director in internal medicine and pediatrics stated, “I tell them stop using the word noncompliant and figure out what the barrier actually is.”

Two participants noted an institutional lack of accountability to equip future physicians to address disparities in healthcare. A program director in internal medicine said that “it is more on an individual provider to address this with healthcare learners.” Similarly, when reflecting upon equipping future physicians to address disparities in healthcare, a participant identifying as both a course director and program director in obstetrics and gynecology felt that “it is up to the professor as there is still not an
institutional mandate that these areas be covered in courses.” Without guidance, cultural competence will be inconsistently distributed across the curriculum. Institutional support is necessary for faculty integration of cultural competence and bias literacy learning objectives.

*Explication of social barriers.* Twenty-eight participants (28.87%) noted they equip future physicians to address disparities in healthcare through explication of social barriers. For eleven participants, explication of social barriers centered around access. A medical school faculty member in surgery stated, “I always discuss the social and economic context of healthcare and access.” Another participant, a medical school faculty member remarked, “I consistently describe the difference between disparities and inequities and how access to health services influences the epidemiology of diseases.” Similarly, a medical school faculty member in pediatrics said, “I work with one-on-one patient interactions with residents and medical students. I have many conversations on the socioeconomic status of patients when reviewing the patient interaction.” For four participants, explication of social barriers centered around etiology. A medical school faculty member in epidemiology said that they strive to help future physicians understand increased cancer rates for certain stigmatized groups by understanding “the interaction of evidence-based practice and population health with regard to diagnostic testing and cancer disparities.”

Two participants noted a desire for explication of social barriers around specific issues. A male identifying program director in radiology stated that “we need to start talking more about women and disparities of women in healthcare. I feel that the women
get shortchanged, the disparities in the pay gap and in healthcare are real and we must resist.” A medical school faculty member in urology stated the first step in equipping future physicians to address healthcare disparities is “diversifying the medical school class (racial/ethnic, economic, geographic, gender/sex identity diversity).”

Eight participants stated explication of social barriers often naturally led to preparing students to advocate for their patients individually and politically. An individual who self-identified as both a course director and program director in pediatrics stated, “our Advocacy Rotation teaches the residents how to make a difference on a larger scale by working with lawmakers around laws that affect vulnerable populations.” Similarly, a medical school faculty member in geriatrics stated, “I want future physicians to become self-aware about the potential for bias in their view of patient care. I want them to consistently address it on a personal level and I encourage them to become concerned activists within their specialty.”

*Experiential learning within impacted communities.* Fifteen participants noted that they equip future physicians to address disparities in healthcare through experiential learning within impacted communities. This experiential learning often occurred through hands-on work in medically underserved communities as reported by seven participants. A course director in family medicine said, “I teach a research and community project course for our rural track students in which they plan and implement a community-based research project. Part of that process is assessing the community and identifying gaps and needs.” Similarly, a medical school faculty member in medical education remarked, “We offer research experiences in health outcomes in underserved groups through association
with a local government Regional Health Policy Council and are planning service-learning activities in inter-professional group outreach projects.” When engaging these experiential learning opportunities, one physician reported attempting to pair students with healthcare workers of a different gender and/or ethnicity.

One institution held a Medicaid teaching clinic, while five other participants reported that their institution held community health fairs and required local and/or international healthcare work, practicums in medically underserved communities, or community-based research projects. A clerkship director in obstetrics and gynecology said:

Between their clinic work and their mission work they see firsthand disparities in health care, and these are addressed at the time and when they return to main campus during larger sessions that include discussions on how these disparities can be addressed.

One participant, a course director in family medicine, stated that their students became interested in researching disparities related topics after an experiential learning encounter.

Specific interventions. Seventeen participants (17.53%) noted they equip future physicians to address disparities in healthcare through specific interventions. These interventions ranged from the philosophical to the technical. Participants valued using interventions to focus on specific issues as opposed to attempting to suppress stereotypes.

One curricular intervention reported by participants was continued study around the mitigation of implicit bias and its relation to healthcare disparities. A medical school faculty member in pediatrics stated, “We have a set implicit bias curriculum and also focus on disparities through journal clubs and also by using quality improvement to
eliminate disparities (by studying outcomes in multiple ways: language, ethnicity, age, Medicaid/non-Medicaid).” Similarly, a medical school faculty member in pediatrics stated, “You expose them to their own biases and make looking at disparities fundamental to what they are studying and what they are learning.”

Another medical school faculty member said that they equip future physicians to address disparities in healthcare “by focusing on people at individual level instead of group level. By moving away from us-them messages/thinking promoted by current programs/directives.” Physicians expressed value in a philosophical shift toward more patient-centered thinking.

Five participants noted that they design and conduct research projects for students to present that identify and address health disparities. One participant emphasized the importance of teaching community-based participatory research. Another participant emphasized “self-reflection on biases/communication styles, communication skills training related to spiritual and cultural differences, and home-based care through hospice.” Another participant denoted they taught “more active listening, narrative medicine and how to work with patients and families.”

Not addressing healthcare disparities. Nine participants reported that they do not address disparities in courses in their course, clerkship, and/or program. A medical school faculty member in pediatrics stated:

Honestly, I do not. I’m trying to manage seeing 25-30 patients per day while creating a meaningful training experience for 3rd year students during their clinical clerkship. Honestly, topics like the well visit exam, asthma care, and the differential diagnosis of abdominal pain are higher on the list of teaching priorities than disparities in healthcare.
Lack of time and lack of guidance were the main reasons expressed for those who chose not to intentionally equip future physicians to address disparities in healthcare through bias literacy and cultural competence.

One participant noted the difficulty of equipping future physicians to address disparities in healthcare, with one medical school faculty member in pediatrics referring to the process as a “moving target.” A different medical school faculty member in pediatrics stated:

I ask questions without providing the ‘right’ answers. The Socratic Method is appropriate for physicians, almost all of whom have the capacity and inclination to ruminate and reflect. I eschew the insipid progressive political indoctrination that passes for disparities education in the news media, corporate shop floors, and general public discourse. Such indoctrination has become a barrier to achievement of deeper understanding and more effective amelioration of cultural problems in health and health care. The wicked stifling of speech by insecure political progressives, in particular, has suppressed expressed thought and made learners too fearful to allow their subconscious biases to surface and be reflected back to them in the psychoanalytic mirror that could facilitate self-awareness and personal improvement. Asinine slogans, progressive propaganda, and coercive corporate anti-bias training have supplanted the sort of psychologically sophisticated mentorship that is most suitable for smart, insightful physicians.

This participant identified supporting factors that may intimidate students from having authentic discussions about and reflecting upon their own cultural scripts. This participant notes the depth of personal development that can occur when medical students are truly given space to allow their biases to surface—and the politically correct, yet shallow answers that will surface if they are too fearful to ruminate on their biases.

Summary

Cultural competence and bias literacy education can play a role in reducing healthcare disparities. The problem is that research shows an individual’s socioeconomic
status, race, and ethnicity influence the quality of care a patient receives from a
physician, in part due to negative predisposed social constructs and bias (Arpey et al.,
2017, Clegg et al., 2009; Matthew, 2015, Wilf-Miron et al., 2010; Phelan et al., 2010).
Learning more about if and how faculty members teach medical students to identify and
mitigate their own biases within clinical encounters may help lessen disparities in quality
of healthcare for stigmatized groups (Blair et al., 2011; Stone & Moskowitz, 2011). The
purpose of this study was to determine if medical school faculty members, course
directors, clerkship directors, and program directors equally integrate cultural
competence and bias literacy learning objectives in their respective roles, and explore
how medical school faculty members, course directors, clerkship directors, and program
directors, in their respective roles, perceive and integrate learning objectives related to
cultural competence and bias literacy as a tool for equipping medical students to address
healthcare disparities.

The results of this study indicated that medical school faculty members, course,
clerkship, and program directors equally integrate learning outcomes regarding health
disparities, community strategies, bias/stereotyping, and self-reflection on the culture of
medicine, but they do not equally integrate learning outcomes regarding communication
skills specific to cross-cultural communication and the use of interpreters. Tukey’s
Honestly Significant Difference (HSD) test was used to determine the nature of the
differences between the groups in domains IV (communication skills specific to cross-
cultural communication) and V (use of interpreters). This analysis revealed a statistically
significant difference: course directors were less likely (M=5.69, S= 4.25) than program
directors (M=8.28, S=2.34) to integrate learning outcomes related to communication
to integrate learning outcomes related to communication
to integrate learning outcomes related to communication (domain IV). Clerkship directors
(M=7.40, S=2.87) and medical school faculty members (M=6.98, S=3.06) were not
statistically significant from either of the other two groups in domain IV. This analysis
also revealed another statistically significant difference: course directors (M=1.00,
S=1.38) were less likely than both program directors (M=2.25, S=1.03) and medical
school faculty members (M=1.84, S=1.29) to integrate learning outcomes specific to the
use of interpreters (domain V). Clerkship directors (M=1.81, S=1.36) were not
statistically significant from any of the other three groups in domain V.

In the qualitative portion of the study, three open-ended questions were asked. In
the first open-ended question, one hundred participants were able to identify positive
ways cultural competence education equips future physicians to address disparities in
healthcare. Eight positive categories in two themes emerged after inductive coding.
Theme one encompassed categories referencing increasing medical student awareness of
health disparities. Participants expressed increased awareness of disparities were
connected to: 1) increased self-awareness, 2) increased understanding of the social and
historical nature of health disparities, 3) error reduction and improved outcomes, and 4) competent and holistic care. Theme two encompassed categories referencing improved clinical encounters. Physicians expressed improved clinical interactions were related to:
1) specialized care, 2) cultural sensitivity, 3) established trust, and 4) mutual respect.
Findings indicated that physicians often saw a connection between increased awareness of disparities (theme one) and improved clinical encounters (theme two). Five
participants (4.76%) perceived uncertain or negative influences for how cultural competence education can equip future physicians to address disparities in healthcare. Faculty members who cited neutral or negative benefits of cultural competence education as a tool to equip future physicians to address disparities in healthcare cited competing priorities and a lack of time and guidance.

The second open-ended question asked how institutions address healthcare disparities through their academic curriculum. Four participants (3.54%) did not respond to this question and 109 participants (96.46%) responded. Two themes emerged: 1) when the institution addressed healthcare disparities through their academic curriculum and 2) how the institution addressed healthcare disparities through their academic curriculum.

Three categories emerged regarding when institutions address healthcare disparities through their academic curriculum: 1) the topic is unaddressed, 2) the topic is addressed in all 4 years of the curriculum, and 3) the topic is addressed in two or less years of the institution’s curriculum. Of the 109 participants who responded to this question, five participants (4.58%) stated that their institutions were not addressing healthcare disparities through their academic curriculum (category one). Twenty-six participants (23.85%) explicitly stated that their institution addressed healthcare disparities throughout all four years of the academic curriculum (category two). Sixty participants (55%) identified cultural competence topics were present in two or fewer years of their institution’s academic curriculum (category three). Eighteen participants (16.51%) did not specify when their institution addressed healthcare disparities through their academic curriculum.
Six categories emerged regarding *how* institutions address healthcare disparities through their academic curriculum: 1) formal interventions, 2) informal interventions, 3) a mix of formal and informal interventions, 4) lack of faculty knowledge regarding how institution addresses healthcare disparities through their academic curriculum, 5) continuing education for faculty, and 6) faculty dissatisfaction regarding how health disparities are addressed by institutions. Eighty participants (73.39%) reported that their institution used formal and informal didactic and clinical exercises related to cultural competence at some point in the medical school curriculum. Twelve participants (11%) did not specify whether their institution addressed cultural competence formally or informally.

Specific, formal interventions were identified by 67 participants (61.47%). Reported formal exercises included: lectures, small group sessions, reflections, patient panels, integration into problem-based learning and practice of medicine courses, grand rounds, experiential learning within impacted communities, simulations, community-based work, targeted programming such as retreats and workshops often led by committees on diversity and inclusion, case-studies, guided discussions in the reading room, and the use of the Objective Structured Clinical Examination.

Informal interventions alone were reported by 13 participants (11.93%). The following informal exercises were reported: social clubs, learning communities, community partnerships, dissemination of continuing education opportunities, role modeling on the wards, and mindfulness. Seventeen participants (15.60%) reported a mix
of formal and informal interventions. Twelve participants (11%) stated that they did not know how their institution addressed healthcare disparities through academic curriculum.

Three participants identified continuing education of faculty members as another median through which their institutions addressed healthcare disparities in their academic curriculum. Another participant noted increased emphasis on cultural competence in medical education over the past few years.

Seven participants at four institutions explicitly indicated dissatisfaction with how their institution addressed healthcare disparities through their academic curriculum. Each of these participants raised valid concerns regarding the formalization and assessment of cultural competence education. Six of the seven individuals who expressed this dissatisfaction were employed at three institutions in a single Southeastern state.

The third open-ended question asked participants how they equip future physicians to address disparities in healthcare in their respective roles. One hundred and four participants (92.04%) responded to this question. Seven participants (6.73%) reported that they do not address disparities in courses in their course, clerkship, and/or program, with most citing a lack of time and guidance as their reasons for choosing not to integrate these topics. Several participants noted the difficult of integrating cultural competence into their learning outcomes. Ninety-seven participants detailed participants how they equip future physicians to address disparities in healthcare in their respective roles. Five themes emerged for curricular interventions: 1) critical appraisal of literature, 2) role modeling, 3) explication of social barriers, 4) specific interventions, and 5) experiential learning within impacted communities.
The research questions focused on the integration of cultural competence and bias literacy learning outcomes in medical education by medical school faculty members, course directors, clerkship directors, and program directors. The data was analyzed, and the results were utilized to answer the nine research questions for this study.
CHAPTER 5
DISCUSSION

As the United States becomes increasingly diverse, disparities in healthcare continue to persist for marginalized groups. Research indicates that implicit bias among physicians is a contributing factor to healthcare disparities for stigmatized individuals (Hagiwara et al., 2016; Hall et al., 2015; Schaa et al., 2015; Zestcott et al., 2016). In light of these persisting disparities in healthcare, it is important to gain additional understanding on if and how medical school faculty members, clerkship directors, course directors, and program directors, in their respective roles, are teaching medical students cultural competence and to identify and mitigate their own biases as a tool to address disparities in healthcare.

Cultural competence is defined as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross cultural situations” (Cross et al., 1989, p. iv). Bias literacy emphasizes not only knowledge and compliance, but rather integrates responsibility for individuals, all of whom have biases, to identify and mitigate their biases, both seen and unseen, within their interactions with others from dissimilar backgrounds (Ross, 2014; Sukhera & Watling, 2018). It is important to remember that the aims of bias literacy curricula are two-fold: first, individuals must become aware of their own biases, and
second, there must be a continued effort to mitigate these biases (Sukhera & Watling, 2018). In tandem, cultural competence and bias literacy are two interventions that can be employed in medical education to address healthcare disparities.

Medical school faculty members are mandated to engage cultural competence and bias literacy as outlined in standard 7.6 of the 2018-2019 *Functions and Structure of a Medical School*, produced by the Liaison Committee on Medical Education (LCME), which states, “the faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process” (LCME, 2018, p. 11). The standard also states that the medical curriculum should address:

1) the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments, 2) the basic principles of culturally competent health care, 3) the recognition and development of solutions for health care disparities, 4) the importance of meeting the health care needs of medically underserved populations, and 5) the development of core professional attributes (e.g., altruism, accountability) needed to provide effective care in a multidimensional and diverse society. (LCME, 2018, p. 11)

Unfortunately, cultural competence and bias literacy interventions in medical education often lack standardization (Gonzalez et al., 2014). Though LCME-accredited medical schools are expected to address cultural competence and bias literacy within their programs, a lack of institutional support, emphasis, and evaluation tools specifically designed for these types of interventions often leave the responsibility of the integration
of cultural competence and bias literacy learning objectives to individual faculty
members, with little accountability for outcomes.

Summary of the Study

The purpose of this study was to: 1) determine if medical school faculty
members, course directors, clerkship directors, and program directors equally integrate
cultural competence and bias literacy learning objectives in their respective roles, and 2)
gain more insight as to how medical school faculty members, course directors, clerkship
directors, and program directors are integrating learning objectives related to cultural
competence and bias literacy in their respective roles. An online questionnaire was
conducted to assess the integration and perceptions of bias literacy and cultural
competence learning objectives by medical school faculty members in their respective
roles. The study analyzed integration of learning objectives related to health disparities,
community strategies, bias/stereotyping, communication skills specific to cross-cultural
communication, use of interpreters, and self-reflection on the culture of medicine among
four groups: 1) medical school faculty members, 2) course directors, 3) clerkship
directors, and 4) and program directors. The study also investigated medical school
faculty member, course director, clerkship director, and program director perceptions
of and engagement with cultural competence and bias literacy learning objectives as a
tool to equip medical students to address healthcare disparities.

A one-way ANOVA was conducted to determine if medical school faculty
members, course directors, clerkship directors, and program directors equally integrate
learning objectives related to health disparities, community strategies, bias/stereotyping,
communication skills specific to cross-cultural communication, use of interpreters, and self-reflection on the culture of medicine. Results of the study indicated medical school faculty members, course directors, clerkship directors, and program directors equally integrate learning objectives regarding health disparities, community strategies, bias/stereotyping, and self-reflection on the culture of medicine, but they do not equally integrate learning objectives regarding communication skills specific to cross-cultural communication and the use of interpreters. Further analysis revealed a statistically significant difference: course directors were less likely (M=5.69, S= 4.25) than program directors (M=8.28, S=2.34) to integrate learning objectives related to communication skills specific to cross-cultural communication (domain IV). This analysis also revealed another statistically significant difference: course directors (M=1.00, S=1.38) were less likely than both program directors (M=2.25, S=1.03) and medical school faculty members (M=1.84, S=1.29) to integrate learning objectives specific to the use of interpreters (domain V).

Three open-ended questions were asked in the qualitative portion of this study. In the first open-ended question, one-hundred participants were able to identify positive ways in which cultural competence education equips future physicians to address disparities in healthcare. Five participants perceived uncertain or negative influences for how cultural competence education can equip future physicians to address disparities in healthcare. Faculty members who reported neutral or negative benefits of cultural competence education as a tool to equip future physicians to address disparities in
healthcare cited competing priorities and a lack of time and guidance on how to address these topics.

The second open-ended question investigated how medical school faculty members, course directors, clerkship directors, and program directors perceived their institutions addressed healthcare disparities through their academic curriculum. One hundred and nine participants responded to this question. Twelve participants reported they did not know how their institution addressed healthcare disparities through their academic curriculum. Five participants reported that their institutions were not addressing healthcare disparities through their academic curriculum. Twenty-six participants explicitly stated that their institution addressed healthcare disparities throughout all four years of the academic curriculum. Sixty participants (55%) reported integration of cultural competence topics in two or fewer years of their institution’s academic curriculum, with most using an informal curriculum. Formal interventions were identified by 67 participants, primarily between M1 and M2; informal integration alone was reported by 13 participants, primarily in M3 and beyond; and 17 participants reported a mix throughout the curriculum.

The third open-ended question asked participants how they equip future physicians to address disparities in healthcare in their respective roles. One hundred and four participants responded to this question. Seven participants reported they do not address disparities in their course, clerkship, and/or program, with most citing a lack of time as their reason for choosing not to integrate these topics. Ninety-seven participants detailed how they equip future physicians to address disparities in healthcare in their respective
roles. Five themes emerged for curricular interventions: 1) critical appraisal of literature, 2) role modeling, 3) explication of social barriers, 4) specific interventions, and 5) experiential learning within impacted communities.

Discussion of Findings

Accreditation by the LCME establishes an institution’s eligibility for Title VII federal funding (health professions student loan programs), precedes students’ eligibility to sit for the United States Medical Licensing Examination, and in part determines students’ eligibility to enter the Accreditation Council for Graduate Medical Education residency programs. Faculty integration of learning objectives specific to cross-cultural communication and bias literacy are driven, in part by accrediting bodies, specifically the Liaison Committee on Medical Education. Professional accrediting bodies play a large role in the United States educational system by creating requirements and guidelines that are standardized across institutions in order to ensure quality, discipline specific educational experiences for all students. The Liaison Committee on Medical Education, which holds joint oversight of both the American Medical Association and the Association of American Medical Colleges, serves an important role in curricular decisions by putting forth educational priorities, guidelines and expectations for member institutions. One such guiding document is the Foundations and Structure of a Medical School.

The United States is becoming more culturally diverse, while at the same time long-documented healthcare disparities persist for stigmatized groups. Consequently, professional health education research demonstrates a renewed emphasis on engaging the
social determinants of health in medical education (Renzaho et al., 2013). Further literature demonstrates the necessity of exploring the intersectionality of social and scientific factors contributing to health disparities (Agargh et al., 2011; Clark et al., 2009; Janati et al., 2011; Nelson et al., 2002; Saydah & Lochner, 2010; Williams & Sternthal, 2010). Little research exists measuring the relationship between a faculty member’s institutional role and their integration of learning objectives related to cultural competence and bias literacy.

The researcher discovered no significant difference in average integration of learning objectives regarding health disparities among medical school faculty members, clerkship directors, course directors and program directors. Literature supports relatively similar levels of integration regarding learning objectives related to health disparities among medical school faculty members, clerkship directors, course directors and program directors due to the expectations of the *Liaison Committee on Medical Education* accrediting body. Standard 7.6 of the 2018-2019 *Functions and Structure of a Medical School*, produced by LCME, specifies faculty should address “the recognition and development of solutions for health care disparities” through curricular content (LCME, 2018, p.11). The findings of this study demonstrate faculty members uphold this accreditation expectation by equally integrating learning objectives related to health disparities within their respective institutional roles.

The use of community strategies in healthcare is often undergirded by further exploration of the social determinants of health. Literature documents healthcare workers need to be sensitive to the history of outsiders who have incited trauma when conducting
research on disadvantaged communities (Pacheco et al., 2013). Examples of this type of trauma include, but are not limited to, the forty-year Tuskegee syphilis experiment (CDC, 2015) and the horrific sexually transmitted disease experiment in Guatemala (Rodríguez & García, 2013) both of which were studies run by the United States Government where minoritized participants were purposefully not treated for their ailments – and in some cases intentionally infected in the first place. Research demonstrates that partnerships with community-based health workers (Kim et al., 2016) have been effective in increasing health education and preventative services (Daniels et al., 2012; Holt et al., 2013; Islam et al., 2013; Katula et al., 2013; Larkey et al., 2012; Lynch et al., 2014; Nuño et al., 2011; Prezio, et al., 2013; Spencer et al., 2011; Tang et al., 2014). Literature also documents that physician expectations for community-based healthcare workers are connected to the physician’s own cultural competence (Mobula et al., 2015).

The researcher discovered no significant difference in average integration of learning objectives regarding community strategies among medical school faculty members, clerkship directors, course directors and program directors. Literature supports relatively similar levels of integration regarding learning objectives related to health disparities among medical school faculty members, clerkship directors, course directors and program directors due to the expectations of LCME standard 7.2 of the 2018-2019 Functions and Structure of a Medical School. The standard specifies faculty should, “Recognize wellness, determinants of health, and opportunities for health promotion and disease prevention” through curricular content (LCME, 2018, p.10). Literature supports the findings of this study as research documents ongoing exploration of health disparities
in professional health education and the role of community partnerships in preventative health, making it appropriate to conclude that medical school faculty members, clerkship directors, course directors and program directors are also exploring the social determinants that influence disparities in healthcare.

Research documents that leaders in professional health programs struggle with how to incorporate bias topics into curricula; especially when dealing with how to manage the influence of bias on patient outcomes and interpersonal experiences (Boscardin, 2015; Burgess et al., 2004; Czopp et al., 2006; Ross, 2014; Virauer & Sasaki, 2009). Literature also documents that healthcare providers, as a group, hold several biases toward socially stigmatized groups (Chapman et al., 2013).

The researcher discovered no significant difference in average integration of learning objectives regarding bias and stereotyping among medical school faculty members, clerkship directors, course directors and program directors. One reason for similar levels of integration of bias and stereotyping learning objectives among all surveyed faculty groups could be due to standard 7.6 of 2018-2019 Functions and Structure of a Medical School which states faculty member should teach students to, “learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process” through curricular content (LCME, 2018, p.10). Considering research that connects the influence of bias and stereotyping to healthcare disparities and poor patient outcomes, it is reasonable to conclude that faculty members in medical schools are equally integrating learning objectives related to bias and
stereotyping (Hagiwara et al., 2016; Hall et al., 2015; Kumagai, 2014; Schaa et al., 2015; Zestcott et al., 2016).

Communication skills specific to cross-cultural communication are a valuable tool for use within physician-patient encounters. The Liaison Committee on Medical Education in standard 7.8 states, “the faculty of a medical school ensure that the medical curriculum includes specific instruction in communication skills as they relate to communication with patients and their families, colleagues, and other health professionals” through curricular content (LCME, 2018, p.10). This standard, however, lacks the specificity found in other standards regarding what skills ought to be engaged.

The researcher discovered a statistically significant difference of average integration of learning objectives regarding communication skills specific to cross-cultural communication among medical school faculty members, clerkship directors, course directors and program directors. The researcher found course directors are less likely (M=5.69, S= 4.25) than program directors (M=8.28, S=2.34) to integrate learning outcomes related to communication skills specific to cross cultural communication (domain IV). Clerkship directors (M=7.40, S=2.87) and medical school faculty members (M=6.98, S=3.06) were not statistically significant from either of the other two groups in domain IV (communication skills specific to cross cultural communication). One reason for this statistically significant difference may rely around literature which documents faculty feel pressure to focus on hard science topics over interpersonal skills (Johnson et al., 2008; Tyler et al., 2009) and lack assessment tools for cultural interpersonal skills (Gonzalez et al., 2014). It is reasonable to conclude that course directors, who are
responsible for “development, planning, reporting, evaluating, and monitoring to balance the discipline-specific interests with the interdisciplinary and overall curricular interests” may feel this pressure more than other faculty groups due to the continued justification of and need to balance skills that are difficult to evaluate (Western Michigan University, 2016, p.44).

Literature documents that physicians hold bias against patients whose native language is not English (Paternotte et al., 2015). The United States Census Bureau reports over 25 million Americans do not speak English very well and over 60 million Americans speak a language other than English within their home (2015). Research documents active interpreters can have a positive impact on the quality of healthcare interactions (Butow et al., 2011; Jackson et al., 2011).

The researcher discovered a statistically significant difference in average integration of learning objectives regarding use of interpreters among medical school faculty members, clerkship directors, course directors and program directors. Course directors (M=1.00, S=1.38) were less likely than both program directors (M=2.25, S=1.03) and medical school faculty members (M=1.84, S=1.29) to integrate learning outcomes specific to the use of interpreters (domain V). Clerkship directors (M=1.81, S=1.36) were not statistically significant from either of the other three groups in domain V.

Literature suggests one reason for this statistically significant difference may be a lack of guidelines for the role of the interpreter within the physician patient relationship. The 2018-2019 Functions and Structure of a Medical School does not mention
interpreters at all. Likewise, in qualitative findings of this study, not a single faculty member mentioned teaching skills regarding how to relate to or work with interpreters in the clinical encounter. In light of research that indicates less than 20% of patients with limited English proficiency individuals are utilizing trained interpreters (Schenker et al., 2011) and literature that documents physicians are unclear on role of interpreters (Hsieh et al., 2013) it is understandable that learning objectives related to use of interpreters are seldomly integrated by faculty members and least integrated by course directors, who may struggle with balancing, justifying and evaluating this topic alongside other discipline-specific scientific priorities.

Research indicates in time bound, high stress situations, physicians have tendencies to employ cognitive shortcuts which increases reliance on implicit bias (Byrne & Tanesini, 2015; Johnson et al., 2016). The Liaison Committee on Medical Education alludes to the fact that faculty members should help students address and engage in reflection upon their own beliefs and value the need to address personal bias through curricular content. Standard 7.6 of the 2018-2019 Functions and Structure of a Medical School states faculty members should help “students to learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process” through curricular content (LCME, 2018, p.10).

The researcher discovered no significant difference in average integration of learning objectives regarding self-reflection on the culture of medicine among medical school faculty members, clerkship directors, course directors and program directors. One reason for similar levels of integration may be due to accreditation expectations.
Research on reflective assignments as an intervention tool that affects students’ mindfulness regarding unconscious stereotypes they may hold about others from dissimilar backgrounds (Isaac et al., 2015) support the findings of this study.

In the qualitative portion of this study, physicians were asked about their perceptions regarding cultural competence education as a tool to equip future physicians to address disparities in healthcare. When observing positive perceptions, the researcher found two themes and eight categories regarding how medical school faculty members, course directors, clerkship directors and program directors perceive cultural competence education can equip future physicians to address disparities in healthcare. Theme one focused on increased awareness of disparities and theme two focused on the improved clinical encounters.

In theme one the researcher found participants reported increased awareness of disparities was connected to: 1) increased self-awareness, 2) increased understanding of the social and historical nature of health disparities, 3) error reduction and improved outcomes, and 4) competent and holistic care. Literature supports these findings as research shows faculty can play a large role in dismantling healthcare disparities by teaching future physicians’ self-awareness and bias mitigation skills (Blair et al., 2011; Stone & Moskowitz, 2011). Theme two, which focused on improved cross-cultural communication was connected to: 1) specialized care, 2) cultural sensitivity, 3) establishing trust, and 4) mutual respect. Literature supports these findings as research indicates physicians are likely to amend clinical decisions upon awareness of unconscious biases (Blair et al., 2011; Stone & Moskowitz, 2011). The two themes and
eight categories found by the researcher support literature that document a shift in medical education toward critical-consciousness based learning that centers on “a state of understanding how power and difference shape social structures and interaction” (Dao et al., 2017, p.335). Additional research regarding the concept of individuating, which involves making a conscious effort to focus on specific information about an individual, making it more salient in decision-making than reliance on a person’s social category information (Chapman et al., 2013) and perspective taking, a conscious attempt to envision another person’s point of view (Chapman, et al., 2013; Todd et al., 2011; Todd et al., 2012; Wang et al., 2014) are also consistent with the researchers findings.

Five participants were unsure of or held negative perceptions of cultural competence education as a tool to equip future physicians to address disparities in healthcare. Literature supports this finding as research documents some faculty members consider cultural competence education to be irrelevant to practice and others perceive this type of education only concreteizes disparities as opposed to decreasing them (Johnson et al., 2008; Macrae, Bodenhansen, Miine & Jetten, 1994; Tyler et al., 2009).

Participants were also asked about their perceptions regarding how their institutions address healthcare disparities through their academic curriculum. The researcher found specific, formal interventions were identified by 67 participants, primarily between M1 and M2, with informal integration alone being reported by 13 participants, primarily in M3 and beyond. Twelve participants did not specify whether their institution addressed cultural competence formally or informally, and 17 participants reported a mix of formal and informal integration.
Reported formal exercises included: lectures, small group sessions, reflections, patient panels, integration into problem-based learning and practice of medicine courses, grand rounds, experiential learning within impacted communities, simulations, community-based work, targeted programming such as retreats and workshops often led by committees on diversity and inclusion, case-studies, guided discussions in the reading room, and the use of the Objective Structured Clinical Examination. Research supports the environmental nature of these findings as literature documents dialogic spaces for reflection are critical to consciousness-based learning (Dao et al., 2017, p. 337; Kumagai, & Naidu, 2015). Literature also supports these findings through the documented use of drama therapy that employs participatory theater and role playing in order to experience dissimilar viewpoints (Williams, 2016). Research also support the findings of this study with the assertion that institutional buy in and continued training for faculty are foundational to critical consciousness-based learning (Nazar et al., 2015; Sorensen, Norredam et al., 2017; White & Stubblefield-Tave, 2017).

The following informal exercises were reported: social clubs, learning communities, community partnerships, dissemination of continuing education opportunities, role modeling on the wards, and mindfulness. Literature supports these findings as Mindfulness Based Stress Reduction (MBSR) intervention programs have been proven to lower implicit bias among physicians (Burgess et al., 2017; Dobkin et al., 2016; Lueke & Gibson, 2015; Tang et al., 2015). A systematic review of 29 MBSR intervention programs found health care providers, after participating in MBSR’s, self-reported “an increase in their ability to identify and accept their own emotions, as well as
to identify others’ emotions” (Burgess et al., 2017, p. 373; Lamothe et al., 2016). In a focus group study of clinicians who completed MBSR intervention programs adapted for health care professionals, participants reported that the course increased their ability to be non-judgmentally aware of their thoughts, sensations, emotions and their ability to regulate their attention and emotions in clinical encounters (Irving et al., 2014). Little research exists regard the use and effectiveness of social clubs, learning communities, and role modeling in medical education as a tool to equip future physicians to address disparities in healthcare.

Medical school course directors, clerkship directors and program directors were also asked about how they equip future physicians to address disparities in healthcare in their respective roles. The researcher found five themes emerged: 1) critical appraisal of literature, 2) role modeling, 3) explication of social barriers, 4) specific interventions, and 5) experiential learning within impacted communities. The researcher found faculty members employed critical appraisal of literature through the use of scientific studies to elucidate examples of healthcare disparities for stigmatized groups, including but not limited to the common inability to extrapolate findings to medically underserved groups who have not historically been tested as often as white males. The researcher also found that role modeling was most often reported on the wards where supervising physicians relied on their prior experiences as teachable moments, gave constructive feedback to students on observations during patient encounters, and addressed instances of bias as they arose with students. Explication of social barriers often involved working with students to understand the larger nature of the historical and systematic origins of health
disparities. Specific interventions were often tailored to the topic of the class, clerkship, or mission of the program. Often these interventions were introduced to help students recognize specific pathologies with increased incidence rates in specific populations. Finally, experiential learning within impacted communities served the unique purpose of allowing future physicians to gain hands-on exposure with individuals most impacted by healthcare disparities. These findings support literature that documents a shift in professional health education toward evaluation of direct and indirect bias and its influence on patient outcomes and encounters (Blair et al., 2011; Teper et al., 2013), developmentally moving students from denial to active management of personal bias (Teal et al., 2012), and active discussion regarding socioeconomic status and its impact on patient access to quality healthcare and healthy quality of living (Agargh et al., 2011; Clark et al., 2009; Janati et al., 2011; Nelson et al., 2002; Saydah & Lochner, 2010; Williams & Sternthal, 2010).

Learning objectives related to cultural competence and bias literacy are being employed by medical school faculty members, course directors, clerkship directors, and program directors within medical education. Continued engagement of these topics within medical education may reduce healthcare disparities that result, in part, from physician implicit bias. Given the pervasiveness of healthcare disparities for members of stigmatized groups, it is noteworthy that many medical school faculty members are specifically teaching future physicians recognize the etiological characteristics of health disparities. However, given the pervasiveness of healthcare disparities for members of stigmatized groups, it is troubling that few physicians, particularly course directors, are
directly addressing how to collaborate with medical interpreters and prioritize reflection on personal values and mitigation of personal bias in communication across cultures. Without physician engagement of personal reflection, acknowledgement of power differentials in clinical encounters, active bias awareness and mitigation in healthcare delivery, communication skills specific to cross-cultural communication will remain underdeveloped, potentially strengthening the pervasiveness of healthcare disparities. The findings of this study demonstrate an inconsistent—though wide—array of integration methods for cultural competence and bias literacy learning objectives within medical education. Lacking from most interventions were standardized methods of assessment and evaluation.

This study was grounded within a theoretical framework of interpretivism. The theoretical framework of this study involved examining how medical school faculty members educate medical students on roles within the physician-patient relationship and the impact of this education on future structural and interpersonal interactions within the delivery of healthcare. Within the context of this study, the sociocultural premise of symbolic interactionism proclaims that individuals within the clinical encounter are actors who play roles and interact with one another based on symbolic meaning personally ascribed to those roles (Blumer, 1986). Stryker defines roles as “expectations, which are attached to social positions or symbolic categories that serve to cue behavior” (1980, p. 57). As meaning is constructed and assigned, language and communication play an important role in social interactions (in this case, clinical interactions between the patient and the physician), as expectations are negotiated and attached to the social status
of the involved roles and how actors believe these roles signal differential behavior.

Concurrently, the ascribed meanings of patient’s roles are thereby constructed by patterns of prior interactions with actors of similar backgrounds, prompting future interactions between the physician and the patient to be signaled by constructed social roles and their respective expectations.

Figure 10. Theoretical Framework Application.

Participant faculty members across all institutional roles were least likely to integrate learning objectives regarding hierarchies related to analysis of the social roles of physicians within the clinical encounter. Domains one (health disparities), two (community strategies), and four (communication skills specific to cross-cultural communication), which were most broadly integrated across all groups, largely address theory and praxis-based content knowledge regarding how to construct meaning around the roles of patients in clinical encounters. This differs from domains three (bias/stereotyping), five (use of interpreters), six (self-reflection on the culture of
medicine), which were least-broadly integrated across all groups, which more directly relate to reflection and scrutiny of constructed meaning of the role of physicians in clinical encounters. Symbolic interactionism reminds us that meaning is constructed and assigned in multiple ways, including the use of social position to cue differential behavior and treatment in the presence of power hierarchies. Reflection and examination of the social roles of physicians within the clinical encounter is imperative to the pursuit of equitable healthcare, particularly in the presence of power differentials that often suppress the roles of stigmatized patients.

Research indicates that a patient’s socioeconomic status, race and ethnicity can negatively impact the quality of healthcare an individual receives from a physician, in part due to stereotypes, negative predispositions and bias (Arpey et al., 2017, Clegg et al., 2009; Matthew, 2015, Wilf-Miron et al., 2010; Phelan et al., 2010). This study demonstrated medical school faculty members, clerkship directors, course directors and program directors equally integrate learning objectives related to health disparities, community strategies, bias/stereotyping, and self-reflection on the culture of medicine, but they do not equally integrate communication skills specific to cross-cultural communication or the use of interpreters. Course directors were less likely (M=5.69, S=4.25) than program directors (M=8.28, S=2.34) to integrate learning objectives related to communication skills specific to cross-cultural communication (domain IV). A possible reason for this significant finding among course directors may include competing priorities between professional and discipline-specific content. Perhaps more than clerkship directors, medical school faculty members, and program directors, course
directors have a responsibility to demonstrate significant engagement with discipline-specific content. Course directors are responsible for the “development, planning, reporting, evaluating, and monitoring to balance the discipline-specific interests with the interdisciplinary and overall curricular interests” (Western Michigan University, 2016, p.44). The qualitative findings of this study support the assumption that course directors encounter difficulty developing, planning, reporting, evaluating, and monitoring skills specific to cross-cultural communication due to few standardized assessment tools specifically designed to measure these soft-skills and a lack of guidelines and institutional support for how to integrate these topics within the formal medical school curriculum (Gonzalez et al., 2014). Course directors may choose to omit or decrease learning objectives relating to cross-cultural communication rather than wrestling with how to justify their relevance, credibility, and effectiveness.

Quantitative findings within this study also revealed course directors (M=1.00, S=1.38) were less likely than both program directors (M=2.25, S=1.03) and medical school faculty members (M=1.84, S=1.29) to integrate learning outcomes specific to the use of interpreters (domain V). Literature documents widespread disagreement on the role of interpreters within the physician patient relationship (Hsieh et al., 2013). The quantitative findings for this study support the assumption that low integration of learning objectives related to use of interpreters persists because consensus on how to identify, collaborate with, and describe the functions of an interpreter are under addressed in medical education (Lie et al., 2008). Qualitative findings for this study also support this assumption, as not a single respondent mentioned collaboration with medical interpreters
as one of the ways they, in their respective role, or their institution, address disparities in healthcare.

Further inquiry is needed into why faculty members of all institutional roles rarely self-report integrating learning objectives related to use of interpreters. Additionally, further inquiry is needed into why course directors self-report limited engagement with learning objectives related to communication skills specific to cross-cultural communication and use of interpreters, particularly at levels so much lower than their peer faculty members.

Qualitative results indicate that most participants were able to identify positive benefits of cultural competence education as a tool to equip future physicians to address healthcare disparities. There are a wide array of institutional and individual curricular interventions regarding cultural competence and bias literacy, but integration of these interventions across the medical school curriculum occurred in two or less years of the institution’s linear curriculum for more than half of the study’s participants and less than one fourth of participants detailed incorporation of these topics across all four years of their institution’s curriculum. Research indicates bias literacy and cultural competence are most useful as ongoing experiences, not sporadic engagements (Sukhera & Watling, 2018).

Physicians, who are often short on time and juggling multiple responsibilities, may be tempted to employ bias and stereotyping as time saving mechanism (Byrne & Tanesini, 2015; Johnson et al., 2016). Without institutional support—in the form of recognition of the importance of cultural competence and bias literacy in the formal
curriculum for medical students, and guided resources, assessment, and evaluation materials—the burden of integrating these topics will fall on often overworked physicians, who may or may not engage these difficult topics. Without accountability regarding the relevance of cultural competence and bias literacy interventions, and without standardized tools to measure these interventions, healthcare disparities for minoritized groups will continue to persist (Boscardin, 2015; Burgess et al., 2004; Czopp et al., 2006; Ross, 2014; Virauer & Sasaki, 2009).

Implications for Practice

It is the responsibility of medical school faculty members, course directors, clerkship directors, and program directors to train future physicians to provide quality healthcare to people of every race, ethnicity, socioeconomic status, education level, ability, sexual orientation, gender identity and national origin. Furthermore, most medical institutions operate under vision and mission statements that profess these same ideals. It is therefore imperative that educational leaders engage the topics of bias literacy and cultural competence in a historically grounded, scientifically evident, consistent and multifactorial nature. Medical school faculty members, course directors, clerkship directors, and program directors have the power to assist in the systematic reduction of healthcare disparities by creating, enforcing, assessing, and evaluating standardized learning objectives, best practices, and reflective exercises that encourage physicians to engage cultural competence and bias literacy. Healthcare disparities will continue to persist if foundational cultural issues surrounding the physician-patient power imbalance
and mitigation of personal bias are not addressed throughout the educational foundation of medical students.

**Recommendations for Research**

Based on the findings of this study, the following recommendations are suggested:

1. Replication of this study across other regions of the United States in order to compare regional engagement of medical school faculty members with learning objectives relating to cultural competence and bias literacy.

2. Development of national guidelines, including assessment and evaluative tools, for cultural competence and bias literacy in medical education.

3. Follow-up interviews with participants who indicated their institution employs a formal cultural competence and/or bias literacy curriculum.

4. Follow-up interviews with participants who reported they directly address cultural competence and bias literacy in their course, clerkship, or program to gain more information about their pedagogical and assessment practices.

5. Creation of a study to measure the interaction between faculty continuing education on bias literacy and cultural competence and faculty integration of learning objectives relating to bias literacy and cultural competence.

6. Investigate the influence of institutional culture on medical school faculty members’ decisions to include or discount cultural competence and bias literacy learning objectives for medical students in their respective role.
7. Investigate whether medical school faculty members from marginalized groups are more likely to directly address cultural competence and bias literacy learning objectives with medical students in their respective roles than those from majority backgrounds.

8. Compare the data from this study with national data to see if there is a difference in the Southeast.

Summary

Research has established that physician bias and stereotyping contributes to healthcare disparities for marginalized groups (Dovidio & Fiske, 2012). A lack of standardization exists regarding if and how medical students are taught to identify and mitigate their own biases (Gonzalez et al., 2014). This study demonstrated that medical school faculty members, course directors, and clerkship directors are integrating learning objectives related to: 1) community strategies, 2) health disparities, 3) bias/stereotyping, 4) communication skills specific to cross-cultural communication, 5) use of interpreters, and 6) self-reflection on the culture of medicine in their respective roles (Lie et al., 2008). However, this study revealed a statistically significant difference: course directors were less likely than program directors to integrate learning outcomes related to communication skills specific to cross-cultural communication (domain IV). This study also revealed another statistically significant difference: course directors were less likely than both program directors and medical school faculty members to integrate learning outcomes specific to the use of interpreters (domain V).
Qualitative results indicated most participants were able to report benefits of cultural competence education for future physicians. A wide array of institutional and individual curricular interventions regarding cultural competence and bias literacy were reported. However, integration of these interventions across the medical school curriculum was present in two or fewer years of the institution’s curriculum for most participants, unsatisfactory for some, and not present for others, with less than one fourth of respondents detailing incorporation of these topics across all four years of their institution’s curriculum. When reviewing the findings of this study, the development of national standards, guidelines, assessment, and evaluation tools for cultural competence and bias literacy in medical education is recommended.

As the composition of the United States continues to become increasingly diverse, cultural competence and bias literacy will only grow in importance. As physicians attempt to address pervasive health inequities, it is important to address the role of medical schools, and by extension, medical school faculty members, in equipping future physicians to address healthcare disparities. It is the responsibility of educational leaders within medical institutions to impress upon medical students the importance of continuing education on cultural competence and constant mitigation of personal bias in clinical judgment in order to provide quality healthcare to all people. After all, the modern Hippocratic Oath, used in many medical schools today, states:

I will remember that I do not treat a fever chart, a cancerous growth, but a sick human being, whose illness may affect the person’s family and economic stability. My responsibility includes these related problems, if I am to care adequately for the sick. I will prevent disease whenever I can, for prevention is preferable to cure. I will remember that I remain a member of society, with
special obligations to all my fellow human beings, those sound of mind and body as well as the infirm. (Lasagna, 1964)
REFERENCES


INFORMED CONSENT FORM

Title of Project: Faculty Members’ Perceptions of the Interplay between Cultural Competence and Bias Literacy within Medical Education as a Tool to Dismantle Healthcare Disparities

Investigator Name: Veronica Gilliard, M.Ed., Doctoral Candidate
Email Contact Information: veronica.g.gilliard@live.mercer.edu

You are invited to participate in a research study conducted through Mercer University by completing an online questionnaire including the Revised Tool for Assessing Cultural Competence Training (Lie et al., 2008), an instrument recommended by the AAMC. Mercer University’s IRB requires investigators to provide informed consent to research participants.

The purpose of this study is to determine if and how medical school faculty members include the topics of cultural competence and implicit bias in relation to healthcare disparities within learning objectives for medical students. You will not be compensated for participating in this study. However, your participation in this study will contribute to a growing body of knowledge about bias-informed healthcare curricula and cross-cultural competence. This research study will be completed as part of the requirements for the Doctor of Philosophy degree at Mercer University.

If You Agree to Participate
The questionnaire will take approximately 10 minutes or less to complete. You will complete the online questionnaire through Qualtrics. The questionnaire encompasses demographic information, institutional and departmental affiliation, the revised Tool for Assessing Cultural Competence (TACCT) (Lie et al., 2008), and three open-ended questions.

Risks/Benefits/Confidentiality of Data
During the questionnaire you will be asked to reflect upon potentially sensitive topics such as socioeconomic class, ethnicity and race. This may cause you some discomfort, and you can choose to skip any questions you do not wish to answer. If you feel uncomfortable, you have the right to discontinue your participation in this study without penalty at any time. Your departmental and institutional affiliations, and demographic information will be de-identified, and very few research team members will have access to this data during data collection.

Participation or Withdrawal
Your decision to participate or decline participation in this research study is voluntary. You may decline to answer any question and you have the right to withdraw your
participation at any time. By clicking the button below, you acknowledge that your participation in the study is voluntary, you are at least 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason. You may inform the researcher of your withdrawal at any time via email at veronica.g.gilliard@live.mercer.edu.

Contacts
If you have any questions about the study, contact the principal investigator, Veronica Gilliard at 678-538-7175 or send an email to veronica.g.gilliard@live.mercer.edu. Mercer University’s Institutional Review Board (IRB) reviewed study #H1804111 and approved it on May 4, 2018.

Questions about your rights as a research participant
If you have any questions about your rights, or are dissatisfied at any time with any part of this study, you can anonymously contact the Institutional Review Board by phone at (478) 301-4101 or email ORC_Research@mercer.edu.

Please note that this questionnaire will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

Thank you in advance for your time and participation! Please print a copy of this document for your records.

○ I consent, begin the study
○ I do not consent, I do not wish to participate
1. Gender
○ Male
○ Female
○ Genderqueer

2. Institutional role (select all that apply)
□ I am a course director
□ I am a clerkship director
□ I am a program director
□ I am a medical school faculty member

3. Institution

4. Years of experience as a course director?
○ 0-5
○ 6-10
○ 11+
○ N/A

5. Years of experience as a clerkship director?
○ 0-5
○ 6-10
○ 11+
○ N/A

6. Years of experience a program director?
○ 0-5
○ 6-10
○ 11+
○ N/A

7. Years of experience as a medical school faculty member?
○ 0-5
○ 6-10
○ 11+
○ N/A

8. Specialty/Department

9. Race
10. Ethnicity

11. Revised TACCT (Lie et al., 2008)

**DOMAIN I – Health Disparities Learning Objectives**

Indicate whether or not you address each concept within your course, clerkship or program.

<table>
<thead>
<tr>
<th>Addressed in Course</th>
<th>Addressed in Clerkship</th>
<th>Addressed in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Define race, ethnicity and culture
Identify patterns of national data
Describe patterns of health disparities
Identify key areas of disparities
Discuss barriers to eliminating health disparities
Concretize epidemiology of disparities
Gather and use data
Critically appraise literature on disparities
Recognize disparities amenable to intervention
Value eliminating disparities

12. Revised TACCT (Lie et al., 2008)

**DOMAIN II – Community Strategies Learning Objectives**

Indicate whether or not you address each concept within your course, clerkship or program.

<table>
<thead>
<tr>
<th>Addressed in Course</th>
<th>Addressed in Clerkship</th>
<th>Addressed in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Describe challenges in cross-cultural community
Understand population health variability
Describe community-based elements
Identify community beliefs and health practices
<table>
<thead>
<tr>
<th>Addressed in Course</th>
<th>Addressed in Clerkship</th>
<th>Addressed in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Collaborate with communities</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Describe methods to identify community leaders</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Propose a community-based health intervention</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Value and address social health determinants</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

13. Revised TACCT (Lie et al., 2008)
DOMAIN III – Bias/Stereotyping Learning Objectives
Indicate whether or not you address each concept within your course, clerkship or program.

<table>
<thead>
<tr>
<th>Addressed in Course</th>
<th>Addressed in Clerkship</th>
<th>Addressed in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Identify how race and culture relate to health</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Identify physician bias and stereotyping</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Demonstrate strategies to address/reduce bias</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Describe strategies to reduce physician bias</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Show strategies to reduce bias in others</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Value historical impact of racism</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
14. Revised TACCT (Lie et al., 2008)
DOMAIN IV – Communication skills specific to cross-cultural communication Learning Objectives

Indicate whether or not you address each concept within your course, clerkship or program.

<table>
<thead>
<tr>
<th></th>
<th>Addressed in Course</th>
<th>Addressed in Clerkship</th>
<th>Addressed in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize patients’ healing traditions and beliefs</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Describe cross-cultural communication models</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Discuss race and culture in the medical interview</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Elicit a cultural, social, and medical history</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Use physician assessment tools</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Elicit information in family-centered context</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Use negotiating and problem-solving skills</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Assess and enhance adherence</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Respect patient's cultural beliefs</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>Nonjudgmental listening to health beliefs</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
</tbody>
</table>
15. Revised TACCT (Lie et al., 2008)
DOMAIN V – Use of Interpreters Learning Objectives
Indicate whether or not you address each concept within your course, clerkship or program.

<table>
<thead>
<tr>
<th>Describe functions of an interpreter</th>
<th>Addressed in Course</th>
<th>Addressed in Clerkship</th>
<th>Addressed in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes  No  N/A</td>
<td>Yes  No  N/A</td>
<td>Yes  No  N/A</td>
</tr>
<tr>
<td>List effective ways of working with interpreter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and collaborate with an interpreter</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Revised TACCT (Lie et al., 2008)
DOMAIN VI – Self-reflection, culture of medicine Learning Objectives
Indicate whether or not you address each concept within your course, clerkship or program.

<table>
<thead>
<tr>
<th>Describe the physician-patient power imbalance</th>
<th>Addressed in Course</th>
<th>Addressed in Clerkship</th>
<th>Addressed in Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize institutional cultural issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engage in reflection about own beliefs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use reflective practices in patient care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value the need to address personal bias</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. How does cultural competence education equip future physicians to address disparities in healthcare?

18. How does your institution address healthcare disparities through academic curriculum?
19. How do you equip future physicians to address disparities in healthcare?
APPENDIX B
RECRUITMENT LETTER
Mercer University
Tift College of Education
Recruitment Letter

Dear Respondent,

My name is Veronica Gilliard. I am an Educational Leadership doctoral candidate at Mercer University. The purpose of this study is to determine if and how medical school course, clerkship and program directors include the topics of cultural competence and implicit bias regarding race, ethnicity and socioeconomic status in relation to healthcare disparities within learning outcomes for medical students. The title of the project is “Faculty Members’ Perceptions of the Interplay between Cultural Competence and Bias Literacy within Learning Outcomes in Medical Education.” I am emailing you to ask if you would like to participate in this research study by completing an online questionnaire including the Revised Tool for Assessing Cultural Competence Training (Lie et al., 2008), an instrument recommended by the AAMC. The questionnaire will take approximately 10 minutes to complete.

Mercer University’s Institutional Review Board requires investigators to provide informed consent to research participants. If you would be interested in completing this questionnaire, please click this link for more information on how to participate.

If you have any questions about the study, contact the principal investigator, Veronica Gilliard, by phone at (678) 538-7175, or via email at veronica.g.gilliard@live.mercer.edu.

Mercer University’s Institutional Review Board reviewed study #H1804111 and approved it on May 4, 2018.

Questions about your rights as a research participant:
If you have questions about your rights as a research participant, or if you are at any time dissatisfied with any part of this study, you may anonymously contact Mercer University’s Institutional Review Board by phone at (478) 301-4101 or by email at ORC_Research@mercer.edu.

Thank you in advance for your time and participation!

Mercer IRB
Approval Date 05/04/2018
Protocol
Expiration Date 05/03/2019
Good Afternoon, Dr.____________:

My name is Veronica Gilliard and I am a doctoral candidate at Mercer University. I’m writing to ask if you would be willing to participate in a research study for my dissertation. The purpose of this study is to determine if and how medical school faculty members include the topics of cultural competence and implicit bias in relation to healthcare disparities within learning objectives in courses, clerkships and academic programs for medical students. This research study will be completed as part of the requirements for the Doctor of Philosophy degree at Mercer University.

Course directors, clerkship directors, program directors and medical school faculty members (including residency and clerkship faculty members) are invited to participate in this research study by completing an online questionnaire including the Revised Tool for Assessing Cultural Competence Training (Lie et al., 2008), an instrument recommended by the AAMC. The Revised Tool for Assessing Cultural Competence Training (Lie et al., 2008) is a self-administered assessment tool used to examine topics relating to cultural competence within medical school curriculum. The questionnaire will take approximately 10 minutes or less to complete. You can complete the questionnaire by clicking this link:
https://ugeorgia.ca1.qualtrics.com/jfe/form/SV_bjZTa1qUZFYwqF

All data will be de-identified.

You will not be compensated for participating in this research study. However, your participation in this study will contribute to a growing body of knowledge regarding the role of cultural competence and bias-informed healthcare curricula and its connection to the reduction of healthcare disparities present among marginalized groups. If you have any questions, I can be reached at veronica.g.gilliard@live.mercer.edu.

With thanks,
Veronica Gilliard
Doctoral Candidate
Mercer University

Mercer University’s Institutional Review Board reviewed study #H1804111 and approved it on May 4, 2018.
APPENDIX D
INSTITUTIONAL REVIEW BOARD APPROVAL LETTER
Friday, May 4, 2018

Ms. Veronica Gillard
3001 Mercer University Drive
Educational Leadership
Atlanta, GA 30341

RE: Faculty Members’ Perceptions of the Interplay Between Cultural Competence and Bias Literacy within Learning Outcomes in Medical Education (M1804111)

Dear Ms. Gillard:

On behalf of Mercer University’s Institutional Review Board for Human Subjects Research, your application submitted on 24-Apr-2018 for the above referenced protocol was reviewed in accordance with Federal Regulations 21 CFR 56.117(b) and 46.110(b) (for expedited review) and was approved under category(ies) 06, 07 per 63 FR 60394.

Your application was approved for one year of study on 04-May-2018. The protocol expires on 05-May-2019. If the study continues beyond one year, it must be re-evaluated by the IRB Committee.

Items Approved:
New student application for a mixed method research design using survey and interviews to determine if and how medical school course, clerkship and program directors are including topics on the relevance and influence of cultural competence and implicit bias recognition and mitigation regarding race, ethnicity and socioeconomic status within learning outcomes for medical students.

NOTE: You MUST report to the committee when the protocol is initiated. Report to the Committee immediately any changes in the protocol or consent form and ALL accidents, injuries, and serious or unexpected adverse events that occur to your subjects as a result of this study.

We at the IRB and the Office of Research Compliance are dedicated to providing the best service to our research community. As one of our investigators, we value your feedback and ask that you please take a moment to complete our Satisfaction Survey and help us to improve the quality of our service.

It has been a pleasure working with you and we wish you much success with your project! If you need any further assistance, please feel free to contact our office.

Respectfully,

[Signature]

Avis Chambless-Richardson, Ph.D., CIP, CHM
Associate Director of Human Research Protection Programs (HRPP)
Member
Institutional Review Board

"Mercer University has adopted and agrees to conduct its clinical research studies in accordance with the International Conference on Harmonization’s (ICH) Guidelines for Good Clinical Practice."
APPENDIX E
PERMISSION TO USE REVISED TACCT (LIE ET AL., 2008)
Re: Requesting Permission to use the Revised TACCT in a Research Study

Desiree <labradoodle05@gmail.com>  Thu 7/5/2018, 2:48 PM
Veronica G. Gillard 🆘

Inbox

You replied on 7/9/2018 4:08 PM.

Veronica,

I must have missed this email. Yes you have our permission to use and acknowledge the TACCT in your research. Thank you for contacting me.

All the best for your project!

Desiree Lie.