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# COLOR-BLIND RACIAL IDEOLOGY, SOCIAL JUSTICE ATTITUDES, AND CULTURAL COMPETENCY IN U.S. MEDICAL STUDENTS AND RESIDENT PHYSICIANS

by

Jennifer G. Hahm

A dissertation submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
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Jennifer G. Hahm

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Jennifer G. Hahm, Ph.D.

Western Michigan University, 2018

Health disparities disproportionately affect the lives of racial and ethnic minorities in the United States (Agency for Healthcare Research and Quality, 2015; U.S. Department of Health and Human Services NHQR, 2013). Social conditions, social determinants, and structural inequities have been acknowledged as influential forces on minority health (Link & Phelan, 1995; World Health Organization, 2011). Focusing on eliminating environmental and social conditions affecting the health status of racial and ethnic minorities should be a prerogative for healthcare professionals in reducing health disparities. The purpose of this study is to examine the relationship between color-blind racial ideology and social justice attitudes on the self-reporting of cultural competency in U.S. medical students and resident physicians. Research on the social and cultural attitudes of medical students and resident physicians is needed to help improve the cultural competency curriculum in medical schools and training programs so that health disparities may be reduced. The present study uses quantitative analyses to explore hypotheses regarding the relationship between demographic variables, educational variables, color-blind racial ideology, social justice attitudes, and cultural competency among U.S. medical students and resident physicians.

Participants were recruited from email list-servs from medical schools and residency training programs in the Midwest. A total of 153 surveys were used in the analyses. The

measures used included the Color-Blind Racial Ideology Scale (CoBRAS; Neville, Lilly, Duran, Lee & Browne, 2000), the Social Justice Scale (SJS; Torres-Harding, Siers, & Olson, 2012), and the Cultural Competence Assessment (CCA; Schim, Doorenboos, & Borse, 2005). Primary analyses were multiple and hierarchical linear regression.

The findings indicate that number of cultural diversity training experiences predict self-reported cultural competency in U.S. medical students and resident physicians when demographic variables (age, gender, race/ethnicity, and sexual orientation) are controlled. Color-blind racial attitudes, specifically those on institutional discrimination, are a significant predictor of self-reported cultural competency, with gender as a possible moderator. The findings indicate that social justice attitudes, specifically those related to perceived behavioral control, are a significant predictor of self-reported cultural competency. The best predictor of self-reported cultural competency appears to be number of cultural diversity training experiences and social justice attitudes, above demographic variables, number of years in school/training, and color-blind racial ideology. The findings of this study may be helpful when developing medical student curriculum and training materials, and indicates a need for material on racial color-blindness and racism.

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# CHAPTER I

# INTRODUCTION

Health disparities disproportionately affect the lives of racial and ethnic minorities in the United States (Agency for Healthcare Research and Quality, 2015; U.S. Department of Health and Human Services NHQR, 2013). Black Americans have the highest rates of mortality from heart disease, cancer, cerebrovascular disease, and HIV/AIDS compared to any other racial or ethnic group in the U.S. (Smedley, Stith, & Nelson, 2003). Hispanic Americans have almost twice the mortality rate from diabetes than non-Hispanic White Americans (CDC, 2013). Asian Americans experience relatively high rates of stomach, liver, and cervical cancers compared to the general population (Smedley et al., 2003). The age-adjusted death rate for American Indian and Alaska Native adults exceeds that of the general population by almost 40%, with deaths due to diabetes and liver disease at three times the national rate (Sarche & Spicer, 2008). Hypertension among Black American men and women account for the greatest disparities in years of lost life compared to any other health condition (Wong, Shapiro, Boscardin, & Ettner, 2002). These high rates of illness and disease among racial and ethnic minorities indicate the presence of significant issues in U.S. healthcare.

In addition to healthcare issues, the U.S. is experiencing a demographic shift within the racial and ethnic makeup of its population. The 2010 U.S. Census identified the country's population as slightly over 308 million (U.S. Census Bureau, 2011), in which 12.6% identified as Black or African American, 0.9% as American Indian/Alaska Native, 5.0% as Asian American/Native Hawaiian and Other Pacific Islander, and 16.3% as ethnically Hispanic or Latino. Population predictions for the year 2050 are that 14.6% of U.S. citizens will be Black, 8% will be Asian, and 24.4% will be Latino or Hispanic (Passel & Cohn, 2008). As the U.S.

shifts to become a “minority-majority” country, healthcare disparities will be an increasingly important issue to address and solutions will require careful examination of the contributing factors.

Income inequality, substandard education, poor housing, and other socio-economic issues within communities are driving factors in health disparities (Mead, Cartwright-Smith, Jones, Ramos, Woods, & Siegel, 2008). However, even after controlling for socio-economic factors, there are issues within the healthcare system that affect the care that racial and ethnic minorities receive (Mead et al., 2008). Two of these issues are *access to services* and *quality of care* (Sue & Dhindsa, 2006). The U.S. Department of Health and Human Services (HHS) measures *access to services* as having health insurance, having a usual source of care, whether difficulties are encountered when seeking care, and receiving care as soon as wanted. Measures of *quality of care* include a broad array of services, including prevention, acute treatment, and chronic disease management, and settings, including physicians’ offices, emergency departments, hospitals, and home health. In an HHS report, Black Americans had worse access to care for about half of the access measures and Latino Americans had worse access for two-thirds of the access to care measures, when both groups were compared to White Americans (NHQR, 2013). Black Americans and Latino Americans received worse care than White Americans for about 40% of the health quality measures and American Indians/American Natives received worse care than White Americans for about 30% of the health quality measures (NHQR, 2013). These findings highlight that beyond socio-economic considerations, there are additional factors that affect the availability and quality of healthcare that racial and ethnic minorities receive.

To examine the factors beyond socio-economic considerations, the U.S. Congress requested the Institute of Medicine (IOM) in 1999 to assess differences in the kinds and quality

of healthcare received by U.S. racial and ethnic minorities, specifically, the "potential sources of racial and ethnic disparities in healthcare, including the role of bias, discrimination, and stereotyping at the individual (provider and patient), institutional, and health system levels" (Smedley et al., 2003, p. 3). The IOM committee published their results in a 2002 report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* They found that racial minorities are less likely to be given appropriate cardiac medications or undergo bypass surgery, less likely to receive kidney dialysis or transplants, appropriate cancer diagnostic tests and treatments, or the most sophisticated treatments for HIV infections, and more likely to receive some less desirable procedures, such as lower limb amputations for diabetes and other conditions (Smedley et al., 2002; Campinha-Bacote, 2003). The IOM report indicates that they not find evidence of any significant proportion of healthcare professionals in the U.S. demonstrating overtly prejudicial attitudes. However, what the study did find was that U.S. society still reflects discriminatory attitudes and behaviors (Nelson, 2003), which continues to affect healthcare institutions and providers. The committee used the term discrimination to describe "differences in care that result from biases, prejudices, stereotyping, and uncertainty in clinical communication and decision-making" (Smedley et al., 2003, p. 4). There is evidence of physicians making differential estimates of disease risk and spending less time interacting and collaborating with individuals from some racial and ethnic groups regarding their healthcare (Benkert & Peters, 2005). In a study of physicians treating both Black American and White American patients, physicians were 23% more verbally dominant and 33% less engaged in patient-centered communication with Black American patients than White American patients (Johnson, Roter, Powe, & Cooper, 2004). Van Ryn and Burke (2000) found that physicians seemed to use patients' demographic characteristics (e.g., race/ethnicity) as decision-making

heuristics for determining coronary artery disease treatment. The physicians participating in this study tended to rate Black American patients as less intelligent and less educated than White American patients, even after controlling for socio-economic status. Black American patients were also somewhat less likely to get reports of physician feelings of affiliation towards them. The results of these studies suggest that the attitudes of healthcare providers and their effect on health disparities are important to examine and address. Research on diversity training has indicated that cultural training and education tends to have larger effects on cognitive strategies and verbal knowledge than it does on attitudes and self-efficacy (Kalinoski et al., 2013). Cognitive-based change includes learning specific facts or information related to diversity while a change in attitudes may involve an increased awareness around biases and stereotyping. Gaining an understanding of how physician attitudes affect patient care may help inform medical education and training programs on how to better educate and train physicians, to help in reducing health disparities.

**Purpose of the Study**

Research is needed on the color-blind racial attitudes and social justice attitudes of medical students and resident physicians to see whether these components affect their abilities to provide culturally competent care and to reduce health disparities. Color-blind racial ideology may often be promoted as an ideal in an attempt to be fair-minded and objective in healthcare. A commitment to social justice appears to be prevalent among physicians (Huddle, 2013), though there appears to be some barriers in engaging in behaviors and actions for social justice. Finding out the prevalence of color-blind racial ideology and social justice attitudes within a medical student and resident physician population may help modify medical school and residency curriculum to be more effective. Attitudes are important aspects of cultural awareness and

sensitivity, and by more explicitly addressing them, there can be greater efficacy in cultural learning. The purpose of this study will be to examine the relationship between color-blind racial ideology, social justice attitudes, demographic variables, and educational variables on the self-report of cultural competency of U.S. medical students and resident physicians.

**Research Questions**

The current study attempted to answer the following research questions:

1. Does a relationship exist between the number of years in school/training, the number of cultural diversity training experiences, and the self-reported cultural competency in U.S. medical students and resident physicians?
2. Does a relationship exist between the color-blind racial attitudes and self-reported cultural competency in U.S. medical students and resident physicians?
3. Does a relationship exist between the social justice attitudes and self-reported cultural competency in U.S. medical students and resident physicians?
4. Does a relationship exist between color-blind racial ideology, social justice attitudes, demographic variables, educational variables, and the self-reported cultural competency in U.S. medical students and resident physicians?

**Research Hypotheses**

The research hypotheses guiding the current study are as follows:

1. U.S. medical students and resident physicians with greater numbers of cultural diversity training experiences will report higher levels of cultural competency.

2a. U.S. medical students and resident physicians with higher levels of color-blind racial attitudes will report lower levels of cultural competency.

2b. Attitudes on institutional discrimination will better predict higher levels of self-reported cultural competency in U.S. medical students and resident physicians than attitudes on racial privilege and racial issues

3a. U.S. medical students and resident physicians with higher levels of social justice attitudes will report higher levels of cultural competency.

3b. Attitudes towards social justice will better predict higher levels of self-reported cultural competency in U.S. medical students and resident physicians than social justice self-efficacy, subjective social justice norms, and intentions to act for social justice.

4. A lower level of color-blind racial ideology, a higher level of social justice attitudes, female gender, non-White racial/ethnic identity, non-heterosexual sexual orientation, and more experiences with cultural diversity training will predict a higher level of self-reported cultural competency in U.S. medical students and resident physicians.

**Definitions of Key Terms**

Race – referring to the socially-constructed categories for groups of people organized around physical traits, e.g. in the United States, “White,” “Black,” “Asian-American.”

Ethnicity – referring to groups of people with shared cultural heritage, e.g. in United States, “Mexican-American,” “Polish-American,” “Lebanese-American.”

LGBTQIA – referring to sexual orientation or gender identity minorities including lesbian, gay, bisexual, transgender, queer or questioning, intersex, and/or asexual identities.

Color-Blind Racial Ideology — a set of beliefs used to make sense of social categories involving race that emphasizes sameness, does not implicate those who are White in racism, and fails to address institutional and systemic inequality (Bonilla-Silva, 2001; Malat, 2013). This term will be used interchangeably with Color-Blind Racial Attitudes.

Culture — “a set of shared worldviews, meanings, and adaptive behaviors derived from simultaneous membership and participation in a variety of contexts including language, age, gender, race, ethnicity, religion, socioeconomic status, and sexual orientation.” (Thomas, 1998, p. 34)

Cultural Awareness — being cognizant of cultural beliefs, practices, and influences of other people and understanding of oneself as a cultural being.

Cultural Competency — “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or amongst professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations” (American Institutes for Research, 2002, p.7).

Cultural Diversity Training Experiences — focused curriculum and learning situations that typically expose a student or trainee to populations diverse in one or more of the following areas: race/ethnicity, sexual orientation, ability status, socioeconomic status, nationality, age, etc.

Medical Students — students who are currently enrolled in a Doctor of Medicine (MD) program or a Doctor of Osteopathic Medicine degree (DO).

Physicians — skilled healthcare professionals who hold a medical degree (MD or DO), and diagnose, treat, and prevent illness, disease, injury, and other physical and mental impairments and maintain general health in humans through application of the principles and procedures of modern medicine (WHO, 2010).

Resident Physicians — trainees who hold medical degrees (MD or DO) and are licensed to practice medicine under the supervision of an attending physician.

Health Disparities – preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations (CDC, 2008).

Social Justice — "a fundamental valuing of fairness and equity in resources, rights, and treatment for marginalized individuals and groups who do not share equal power in society" (Constantine, Hage, Kinaichi, & Bryant, 2007, p.24).

# CHAPTER II

# REVIEW OF RELATED LITERATURE

In the review of related literature, the nature of the relationship between cultural competency, education, color-blind racial attitudes, and social justice attitudes will be examined. The review will specifically examine the following: (a) cultural competency education, (b) cultural competency models developed for healthcare, (c) cultural competency in medical education, and (d) attitudes in healthcare, specifically color-blind racial ideology and social justice. The chapter will conclude with a summary highlighting aspects of the related literature.

## Cultural Competency Education

The historical foundation of cultural competency education is the civil rights movements of historically oppressed groups (Gorski, 1999). In the 1960s, Black Americans and other racial and ethnic minorities challenged discriminatory practices within public institutions, particularly within educational organizations. Into the 1970s, the women's rights movement focused on the disparity in employment, income, and educational opportunities, and identified education as the primary factor in institutionalized and systemic issues. Feminist scholars and activists highlighted the discrepancy between the low number of female administrators relative to the number of female teachers (Banks, 1989). Through the 1970s, gay and lesbian groups and people with disabilities called for sociopolitical rights. Scholarship on multicultural education by progressive education activists in the 1980s called for schools to be examined as social systems and to not address concerns by merely adding in symbolic programs and units on famous women or people of color (Banks, 1981). Into the 1990s, cultural competency education focused on approaches and models of education built on concepts of social justice, critical thinking, and equal opportunity (Gorski, 1999). Presently, there are initiatives across disciplines

to incorporate cultural education and competencies in what is being recognized as a necessity to work with an increasingly diverse U.S. population and with globalization.

Within teacher education, there has been an identified need for cultural competence to enable teachers to effectively teach diverse students. The National Council for Accreditation of Teacher Education (NCATE) has stipulated that teacher candidates are required to "acquire and demonstrate the knowledge, skills, and professional dispositions necessary to help all students learn" (p. 12). A research study conducted with 32 pre-service teachers in an elementary education program and 11 teacher educators, all from a Midwestern university, indicated that the participants believed that multicultural education matters and that understanding and confronting racism was important (Yang & Montgomery, 2013). However, there was a divide in attitudes between educators who believed that all students should be treated the same and that similarities should be emphasized, and those who believed in the importance of highlighting and attending to student diversity. Regarding teacher training, Wasonga (2005) found that the impact of cultural knowledge on attitudes was minimal and that it did not affect the way the majority of pre-service teachers ($n$ = 75) viewed children from diverse backgrounds. Research within the field of education highlights the role of attitudes in cultural education and training.

Within the discipline of psychology, counseling psychology has emerged as a field with central values in cultural sensitivity and diversity, since the 1970s (Brown & Lent, 2008; Gelso & Fretz, 2001). The American Psychological Association developed the *Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists* in 2002 to highlight the profession's recognition of the important role that diversity and culture has for individuals, groups, the United States, and globally. In the related field of counseling, the American Counseling Association has stated in the code of ethics that

counselor educators should "actively infuse multicultural/diversity competency in their training and supervision practices. They actively train students to gain awareness, knowledge, and skills in the competencies of multicultural practice" (ACA, 2014, p.15). These guidelines and codes call for cultural competency to be integrated into the field and research related to this topic has ensued.

There has been a growing number of research studies conducted on examining the cultural competency of mental health professionals and trainees. Diaz-Lazaro and Cohen (2001) found that the self-report of cultural competency in graduate-level counseling students increased after taking a multicultural course, though the sample size was small ($n$ = 15). Research conducted by Chao, Wei, Good, and Flores (2011), found that cultural competency training significantly enhances cultural awareness for White counseling trainees ($n$ = 255) but does not have significant effects on cultural awareness for racial/ethnic minority trainees ($n$ = 115). The racial/ethnic minority trainees were found to show significantly greater cultural awareness even at lower levels of training. In a sample of 196 doctoral-level and masters-level therapists who were mostly female (75%) and White (64.3%), findings supported the importance of therapist's personal attitudes towards diversity, and specifically his or her awareness and acceptance of both similarities and differences in others (Tummala-Narra, Singer, Li, Esposito, & Ash, 2012). Alongside many other studies on cultural competency within the fields of psychology and mental health, these findings support the importance of cultural competency education.

**Cultural Competency in Healthcare Education**

Within the physical healthcare field, many professions are examining their cultural competency education and training, including nurses (Beard, 2016; McGinnis, Brush, & Moore, 2010; Starr, Shattell, & Gonzales, 2011), physician assistants (Beck, Scheel, De Oliveira, &

Hopp, 2013; Kelly, 2012), and pharmacists (Okoro, Odedina, & Smith, 2015; Sales, Jonkman, Conner, & Hall, 2013). Similar to these disciplines, the education that medical students and resident physicians receive regarding culture and health disparities affects the healthcare that racial and ethnic minorities receive. With education and intention, physicians can significantly reduce the provider contribution aspect of health disparities (Awosogba et al., 2013). In 2005, the American Association of Medical Colleges (AAMC) released an initiative addressing the need for cultural competency education for medical students. The initiative defined cultural competence as "a set of congruent behaviors, knowledge, attitudes, and policies that come together in a system, organization, or among professionals that enables effective work in cross-cultural situations" (AAMC, 2005, p. 1). The standard put forth by the Liaison Committee on Medical Education (LCME) in 2000 was for faculty and students to do the following:

> Demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments. Medical students should learn to recognize and appropriately address gender and cultural biases in healthcare delivery, while considering first the health of the patient. (p. 1)

The AAMC initiative added that cultural competency education cannot be an add-on to present medical school curriculum as it will be seen as elective material or not important.

With the need for cultural competency education identified, the LCME (2000) has mandated cultural competency education in medical schools as a part of the accreditation of American and Canadian M.D. programs. Residency programs have also moved to implementing cultural competency requirements in response to the Accreditation Council of Graduate Medical Education's (ACGME's) cultural competence standards (Betancourt, Green, Carillo, & Park,

2005). In 2004, 50.7% of roughly 8,000 graduate medical educational programs were found to offer cultural competency training in 2003 to 2004, which was up 35.7% from 2000 to 2001. This increase was believed to be in response to pressure from the ACGME and the Institute of Medicine, which recommended that cross-cultural curriculum be a part of provider-training from the undergraduate level to continuing medical education (CME) for professionals (Betancourt et al., 2005). In offering cultural competency curriculum and training, healthcare-specific models of cultural competency have been developed.

**Cultural competency in healthcare.** Two models have been developed to address the various components of cultural competency in healthcare providers. Early conceptualizations of cultural competency in healthcare focused on obtaining skills and knowledge on how to interact with specific cultural groups (Betancourt, 2004). These approaches were considered harmful because group stereotypes were imposed on the individuals, treating them as homogenous. Cultural competency education has since shifted towards multi-component models that expanded on the two objectives of obtaining knowledge and developing skills, to also integrating a concept of developing cultural self-reflection and awareness.

The U.S. Department of Health and Human Services released a guidebook on implementing cultural competency education in medical schools in 2004 (Furman & Dent). The guidebook lists three domains to cultural competency learning, which were adopted from Sue et al. (1982): (a) knowledge, (b) skills, (c) and awareness.

*Knowledge.* The knowledge domain, also known as the multicultural/categorical approach, consists of increasing the knowledge of the learner on cultural topics (Furman & Dent, 2004). Definitions about culture and related topics, and specific facts about cultural groups may be included under this domain. Knowledge also includes identifying prevailing health beliefs,

practices, and values, and identifying social, economic, and behavioral determinants of health. Evidence-based information related to health disparities and the impact of health delivery systems are also topics covered under this domain.

*Skills*. The skills domain, or cross-cultural approach, focuses on developing the skills and tools of the learner (Furman & Dent, 2004). Strategies for eliciting information from patients through culturally-appropriate communication and interview techniques, and developing a culturally-sensitive treatment plan may be covered. Information related to implementing strategies to increase physician-patient communication in treatment decisions is included in this domain.

*Awareness*. The aim of the cultural sensitivity/awareness approach is to increase the learners' sensitivity, humility, respect, and awareness of the influence of cultural factors on patients' values, beliefs, and attitudes. The learners' self-reflection and understanding of their own culture are important components in this domain, and is what makes cultural competency learning more than just learning about other cultures. It requires learning about oneself as a cultural being with historical and societal influences. Increasing the learners' awareness of stereotyping, personal biases and beliefs, and the effect on the physician-patient dynamics are key aspects.

***Process of cultural competence in the delivery of healthcare services model.*** In 1998, Campinha-Bacote developed a model that viewed cultural competence as the "ongoing process in which the healthcare provider continuously strives to achieve the ability to effectively work within the cultural context of the client (individual, family, community)" (p. 181). The model requires that healthcare providers view cultural competence as a continual, on-going process rather than an achievement. Campinha-Bacote (1998) expanded on the knowledge, skills, and

awareness model by developing two additional aspects, cultural encounters and cultural desire. The five components of the Campinha-Bacote (1998) model are as follows: (a) cultural awareness, (b) cultural knowledge, (c) cultural skill, (d) cultural encounters, and (e) cultural desire. Although Campinha-Bacote (1998) developed the model for transcultural nursing, the model is often used for cultural competency education in medical schools and with physicians.

*Cultural awareness.* The cultural awareness construct involves the self-examination and in-depth exploration of the learners' own cultural and professional backgrounds. Without this component, the learners risk imposing their beliefs, values, and patterns of behavior on individuals of other cultures. The learners must examine their own biases, prejudices, and assumptions of individuals who are different. Examining how racism affects healthcare delivery is an example of cultural awareness.

*Cultural knowledge.* Seeking and obtaining an educational foundation of health-related beliefs and cultural values, disease incidence and prevalence, and treatment efficacy is the key component of the cultural knowledge construct. Understanding patients' health-related beliefs and values aids in understanding their worldviews. Campinha-Bacote (1998) indicates the cultural knowledge construct involves learning biocultural ecology and ethnic pharmacology in order to understand disease incidence, prevalence, and treatment efficacy for individuals of different groups. An example of cultural knowledge would be learning about the holistic view of mind and body in some Eastern cultures contrasted to the dichotomy of mind and body typically associated with Western culture.

*Cultural skill.* The cultural skill construct refers to the learner's ability to collect relevant cultural data regarding the patient's presenting problem as well as conducting a culturally-based physical assessment. Campinha-Bacote (1998) states that a healthcare provider should know

how a patient's physical, biological, and physiological variations influence the provider's ability to conduct an accurate and appropriate physical evaluation. Having an understanding of how it may be viewed as inappropriate in some cultures for a patient to have a physician of the opposite sex is an example of cultural skill.

*Cultural encounters.* The cultural encounters construct was added to describe the process that encourages learners to directly engage in cross-cultural interactions with patients from culturally diverse backgrounds. Directly interacting with others from diverse cultural groups can influence and modify the learners' existing beliefs about cultural groups and prevent stereotyping. It is important to note that interacting with several individuals from a specific cultural group do not make the learners experts on this cultural group. The learners must recognize heterogeneity of cultural groups. Assessing linguistic needs of a patient is also an aspect of this construct as a lack of knowledge in this area can lead to faulty and inaccurate data collection. A medical student from a middle-class background working with a homeless population is an example of a cultural encounter.

*Cultural desire.* Cultural desire describes a learner's intrinsic motivation, rather than an extrinsic necessity, to engage in the process of developing cultural awareness, knowledge, skills, and engagement in cultural encounters. It is the motivation to "want to" engage in the process of developing cultural competency, which stands in contrast to a feeling of "having to," (Campinha-Bacote, 2003). The concept of caring is an essential component of the cultural desire construct. The healthcare provider cannot merely state that they respect a patient's values, beliefs, and practices, or simply go through motions of providing a culturally-sensitive intervention. Cultural desire includes a passion for and commitment to examining subjects that can be uncomfortable to process, such as racism (Campinha-Bacote, 2003). The healthcare provider's real motivation or

desire to provide culturally-responsive care and to engage in a life-long learning process is referred to also as “cultural humility” (Tervalon & Murray-Garcia, 1998). Students who believe that learning about cultural matters informs them so that they may be better physicians demonstrate cultural desire.

***Cultural competence model.*** Doorenboos and Schim (2004) developed the Cultural Competence Model for healthcare providers using the analogy of a jigsaw puzzle. The puzzle pieces in this model represent important provider elements: (a) cultural diversity, (b) cultural awareness, (c) cultural sensitivity, and (d) cultural competence behaviors. The expectation is not that healthcare providers achieve cultural competence but, rather, they should continually strive to develop competencies to the specific populations and individuals with whom they work.

*Cultural diversity.* Doorenboos and Schim (2004) use Kottak’s (2004) definition of culture, which focuses on attributes acquired through living in or experiencing a particular society, rather than through biological inheritance. The element of cultural diversity acknowledges that the U.S. population is becoming increasingly diverse across race and ethnicity (U.S. Census Bureau, 2011). With this trend, it is important for healthcare providers to be aware of cultural differences as they interact with patients of various cultural groups. An example of cultural diversity in this model would be a provider’s awareness of diversity within and between groups and individuals identifying as sexual orientation or gender minority identities, including lesbian, gay, bisexual, transgender, queer or questioning, intersex, and/or asexual identities (LGBTQIA).

*Cultural awareness.* Cultural awareness is based on knowledge and is closely linked with education. Efforts to incorporate cultural knowledge into healthcare curriculum are part of this domain. Educational interventions in various practice settings have been linked to increases

in cultural knowledge (Browne, Braun, Makuau, & McLaughlin, 2002). In this model, cultural awareness is different than how it is conceptualized in other models (Campinha-Bacote, 2003; Sue et al., 1982), as other models emphasize awareness as self-reflection, whereas in this model it is linked with knowledge and information a provider has on other cultures. Having an understanding of appropriate eye contact within various cultures is an example of cultural awareness in this model.

*Cultural sensitivity.* Cultural sensitivity involves the "recognition of personal attitudes, values, beliefs, and practices of one's own culture and insight into the effect of self on others" (Doorenboos & Schim, 2004, p. 356). Cultural sensitivity can be demonstrated through communication skills. Listening, nonverbal communication, careful use of silence and touch, respect for conversational distance, and appropriate tone of voice are all aspects of communication that may involve cultural sensitivity. This domain includes sensitivity towards coworkers as the healthcare workforce becomes increasingly diverse and effective team functioning will require open and respectful dialogue. It is this concept of sensitivity that is described as awareness in other cultural competency models (Campinha-Bacote, 2003; Sue et al., 1982; Sue & Sue, 2015). An example of cultural sensitivity in this model is having an understanding of one's own racial identity and how it influences interactions with patients.

*Cultural competence behaviors.* The demonstration of cultural competence occurs when personal experience with cultural diversity, awareness, and sensitivity are incorporated into everyday practice behaviors. Competence behaviors are learned from awareness of individual and group similarities and differences, and sensitivity to self and others. Adapting health advice and interventions to the specific needs of clients is basic to effective care and a demonstration of

cultural competence behavior. Securing the services of a translator for a patient who is not comfortable speaking English is an example of cultural competence behaviors.

**Assessing medical school curriculum.** The AAMC and Commonwealth Fund developed a project titled "Medical Education and Cultural Competence: A Strategy to Eliminate Racial and Ethnic Disparities in Health Care" after the LCME's standards for cultural competency in medical education in 2000. This led to the development of the Tool for Assessing Cultural Competence Training (TACCT), a self-administered tool that can be used by medical schools to assess their curriculum and to identify gaps, particularly in preparation for accreditation visits (Lie et al., 2008). Some of the domains listed on the TACCT are: identifying how race and culture relate to health, recognizing institutional cultural issues, identifying physician bias and stereotyping, describe physician effect on health disparities, engage in reflection about own beliefs, and value the need to address personal bias. The TACCT involves listing the various courses that a medical school offers to address these domains in order to examine the extent to which cultural competency is covered in the curriculum. While it is important that medical schools thoroughly and routinely assess their curriculum, it is imperative to understand the impact these courses and educational objectives have on medical students.

**Research on attitudes towards cultural competency curriculum.** Several studies have examined how students view cultural competency curriculum. A survey conducted at Harvard Medical School with students in all four years of training, over four consecutive years, yielded a sample of 2,595 responses and indicated that a majority of fourth-year students still felt inadequately prepared and skilled in many important aspects of cross-cultural care (Green et al., 2017). A focus group study involving 22 preclinical and clinical medical students' perceptions on a multicultural curriculum and their preparedness for dealing with racism and disparities

found that the students believed a more integrated curriculum was necessary (Lypson, Ross, & Kumagai, 2008). The students wondered whether cultural competency was a topic that could even be taught or learned. Without a full integration of cultural issues at every stage of professional learning and development, cultural competency was not taken as seriously by students as other aspects of their curriculum that were vigorously studied and tested through examinations and certifications. The focus group also found that students saw the current presentations of their cultural curriculum as reinforcing stereotypes through the written presentations of case studies and clinical vignettes. The students preferred to learn from real interactions with patients instead of learning about cultural issues from written curriculum, which they described as not being as effective.

A needs assessment to identify gaps in the cultural competency and sensitivity components of curriculum by a Midwestern medical school found that a significant proportion of the first and second year students who participated in the study did not place importance on understanding patient cultural beliefs (Loue, Wilson-Delfosse, & Limbach, 2015). Of the sample of 333 students, 16.5% did not believe that self-reflection regarding cultural biases was important to their performance as a physician. One-quarter of the students in the sample did not respond to this item, indicating that the number of students who did not believe in self-reflection of cultural biases may be higher. Regarding the understanding of diverse patient cultural beliefs in the provision of effective patient care, 38.8% of the sample did not view this as important. Around one-third of the students indicated that they are uncomfortable with and unsure about how to approach culture-related issues arising in patient care. There was an absence of statistical significance between the responses of the first and second year students. The similarity in responses between the first and second year students suggests that the second year students did

not increase their cultural competency through the curriculum presented in their first year of medical school. Data on race and gender demographics were not collected to protect student identities within the school, and therefore, information on possible differences between White and non-White students regarding attitudes on cultural issues was not available. Overall, the medical school's needs assessment seemed to indicate that a greater emphasis on cultural competency attitudes and self-reflection is needed.

Research conducted with focus groups consisting of a total of 24 residency faculty members and 27 resident physicians across family medicine, internal medicine, and pediatric medicine assessed how physicians are viewing cultural competency once they have completed medical school requirements (Shapiro, Hollingshead, & Morrison, 2002). The sample consisted of 19 male and 9 female second- and third-year residents, 8 male and 17 female faculty, and there were 6 male and 8 female patients for a patient focus group. Approximately 40% of the residents and faculty identified as Asian, 34% identified as non-Hispanic White, and the remainder had other racial/ethnic identities. The resident physicians in the focus groups tended to define cultural competency primarily around language skills and specific knowledge. They expressed skepticism towards the value of cross-cultural curriculum, particularly around communication skills training and self-awareness exercises. They stated that they already had these skills or did not need them, indicating a preference for experiential learning. The residency faculty tended to emphasize culturally sensitive attitudes in relation to cultural competency. However, both resident physicians and faculty in the focus groups tended to use person-blame models in identifying barriers to culturally competent communication, though faculty were less likely to do so. The person-blame model included criticism of patients for being passive and demanding, failing to use the healthcare system properly, and not having understanding of their

medical problems. Without self-reflection and an examination of how oneself as a professional may be contributing to difficulties in cross-cultural care, physician-patient dynamics that contribute to health disparities may continue. As indicated in the mentioned studies done on medical school and residency curriculum, helping students and resident physicians to strengthen their self-reflection and valuing of cultural competency is important.

## Attitudes in Healthcare

**Color-blind racial ideology.** Racism has been defined as phenomenon that maintains or exacerbates inequalities in power, resources, or opportunities across racial or ethnic groups (Paradies, Truong, & Priest, 2013). It can manifest through behaviors and/or practices in interpersonal dynamics (i.e., discriminatory interactions between individuals) and systemic/institutional environments (i.e., discrimination occurring through policies, practices, or processes within organizations/institutions; Berman & Paradies, 2010). Research has found statistically significant evidence of racist beliefs, emotions, or practices among U.S. physicians through meta-analysis of literature from 1995 onwards, measured by self-completed surveys, vignettes, and the Implicit Association Test (IAT; Paradies et al., 2013). However, the 2002 IOM report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, did not find a significant proportion of healthcare providers demonstrating overtly prejudicial attitudes, but that healthcare providers continued to be affected by the discriminatory attitudes and behaviors prevalent in U.S. society. The mechanism for this effect is what DiAngelo (2012) terms as *new racism*, "the ways in which racism has adapted over time so that modern norms, policies, and practices result in similar racial outcomes as those in the past, while not appearing to be explicitly racist" (p.106). An issue with cultural competency curriculum is that it can be taught in a manner that does not explicitly acknowledge racial disparity (Chae, Nuru-Jeter,

Lincoln, & Francis, 2011). When race and racism are minimized, and when there is a belief that if race is not discussed, racism will end, this is referred to as color-blind racial ideology (Bonilla-Silva, 2009; DiAngelo, 2012). This belief, or ideology, tends to be a common one among White Americans (Doane, 2007).

Color-blind racial ideology (CBRI) can be considered a contemporary manifestation of racism as it is often explained in terms that do not implicate Whites and fails to address institutional and systemic inequality (Bonilla-Silva, 2015; Malat, 2013). Whites with color-blind racial ideology often fail to see the ways "everyday, non-extremist White behavior relates to inequality" (Malat, Clark-Hitt, Burgess, Friedemann-Sanchez, & van Ryn, 2010, p. 1444). Racial color-blindness can be considered as two core interrelated dimensions, color-evasion and power-evasion (Frankenberg, 2003). Color-evasion suggests that Whites "emphasize sameness as a way of rejecting the idea of White racial superiority" (p. 147). Power-evasion refers to the belief that everyone has the same opportunities to succeed and failure is the result of the individual (p. 149). Power-evasion occurs when social determinants and systemic barriers that racial and ethnic minorities experience are minimized and overlooked.

In the medical field, where objectivity is emphasized, racial color-blindness can easily be promoted as an ideal. Some people view racial color-blindness as a fair-minded perspective and as a strategy to manage diversity by reducing racial prejudice (Knowles, Lowery, Hogan, & Chow, 2009). However, research has indicated that those with higher color-blind racial ideology engage in racially insensitive behavior (Holoien & Shelton, 2012; Norton, Sommers, Apfelbaum, Pura, & Ariely, 2006). CBRI has been linked to an increase in negative emotions, fear of racial and ethnic minorities, and a lack of ethnocultural empathy (Neville, Awad, Flores, & Bluemel, 2013). Individuals with greater levels of CBRI have been found to show more racial bias on

both implicit and explicit measures of racism (Richeson & Nussbaum, 2004). In a study using the IAT with 202 medical students, 69% demonstrated an implicit preference for White persons, though this preference was not demonstrated when they were administered clinical vignettes (Haider et al., 2011). It is possible that responses to clinical vignettes are affected by social desirability, while implicit measures require quick, 'gut reactions' (Paradies et al., 2013).

**Social justice.** Social justice has been defined as reflecting a "fundamental valuing of fairness and equity in resources, rights, and treatment for marginalized individuals and groups who do not share equal power in society" (Constantine, Hage, Kinaichi, & Bryant, 2007, p. 24). In the 1970s and after, medical ethics has been criticized for being authoritarian, parochial, and paternalist (Veatch, 1984), which led to a new emphasis on medicine's relations with society and social justice (Huddle, 2013). In 2002, the American Board of Internal Medicine Foundation and the American College of Physicians Foundation launched the Medical Professionalism Project. The project led to the development of a professionalism charter with three fundamental principles: primacy of patient welfare, patient autonomy, and social justice (Kirk, 2007). The social justice principle was developed to address physicians' societal contract and distributive justice. Physicians are asked to promote justice in the healthcare system, including the fair distribution of healthcare resources, and to actively work to eliminate discrimination in healthcare (DasGupta et al., 2006).

Though there is a call for social justice in healthcare, the current climate of medicine has some difficulty incorporating social issues as central to its practice (DasGupta et al., 2006). Some argue that making social justice a distinctively professional imperative is a mistake and that it should be a civic responsibility as a citizen, not as a professional (Huddle, 2013). Others believe that it is the responsibility of the medical profession to act for justice, but this often

requires political activism and many individual physicians and medical students, organizations, and institutions, do not readily engage in such activity ("Medical students as champions for social justice," 2007). Physicians may understand and have awareness of social responsibilities and obligations for social justice, but may believe it is not their personal responsibility to work to rebalance the principles of medical ethics (Kirch & Vernon, 2009). Research has shown that despite highly favorable physician attitudes towards community participation, political involvement, and collective advocacy (Gruen, Campbell, & Blumenthal, 2006), less than half of 314 U.S. physicians surveyed volunteered with community organization in the past year (Grande & Armstrong, 2008). They were half as likely to have volunteered as the general public or lawyers, and more likely to have volunteered if they worked part-time or variable hours, compared to those working full-time.

It has been found that in higher education, the more students are interested in social issues, the more likely they are to work towards ensuring diverse representation of people and ideas in their social environments (Lewis, Neville, & Spanierman, 2012). Understanding the social justice attitudes of medical students and resident physicians may provide an opportunity to further develop curriculum and training so that physicians may fulfill their responsibilities towards professionalism.

**Summary.** In recognition that the cultural competency of a physician can affect the healthcare a patient receives, curriculum on cultural learning and issues has been mandated for medical schools and training programs. The Liaison Committee on Medical Education (2000) specifically called for medical curriculum to involve the recognition and response to cultural biases that can affect healthcare delivery. There are cultural competency models in healthcare learning that contain aspects of cultural awareness and sensitivity, with the goal of developing

self-reflection and awareness of oneself as a cultural being and on one's cultural biases. Research on student and trainee attitudes have found that many physicians-in-training are unsure of how to address cultural issues in healthcare delivery, and for some students, they do not value cultural self-reflection.

As recognized by Sue et al. (1982) and Sue and Sue (2015), awareness is one of three components to cultural competency and examining how medical student and trainee attitudes and awareness can be addressed is important for overall cultural competency. Color-blind racial ideology and social justice are two specific attitudes that can be examined to assess the components of cultural awareness and sensitivity in cultural competency. Color-blind racial ideology minimizes the significance of race in determining and influencing the socioeconomic conditions and opportunities. Research has demonstrated that greater levels of color-blind racial attitudes is associated with behavior that is racially insensitive. To address color-blind racial attitudes, it is important to understand oneself as a racial being with racial experiences, and to learn about the significance of race in history, e.g. colonialism, slavery and genocide in the U.S.

Social justice values and works towards fairness and equity in society from the recognition that not all groups share equal power in society. Though there is some debate about whether social justice is a civic or professional responsibility, many physicians and medical students believe in social justice (Gruen, Campbell, & Blumenthal, 2006; Kirch & Vernon, 2009). However, these beliefs do not necessarily translate into action. Some studies have indicated that while many physicians endorse beliefs in social justice and community involvement, actual participation in volunteer activities is lower (Grande & Armstrong, 2008). Overall, color-blind racial attitudes and social justice attitudes are important to examine as they can provide understanding as to how medical students and physicians in training are viewing

societal constructs and commitments. This understanding can provide information on how to effectively improve medical school curriculum to address cultural awareness and sensitivity, essential components of cultural competency.

# CHAPTER III

# METHOD

## Participants

Participants for this study were recruited from email list-servs for medical schools in the Midwest. Individuals meeting the following criteria were invited to participate: 1) currently enrolled in an M.D. (Doctor of Medicine) or D.O. (Doctor of Osteopathic Medicine) program in the United States, or 2) have an M.D. or D.O degree and currently completing a residency training program in the United States.

A total of 203 web links were opened that connected participants to the survey in this study and there were 164 true responses completed. A true response was considered a survey that had an answer to every item. One (0.5%) of the completed surveys was excluded because the participant did not identify as being in an M.D. or D.O. program. Ten (4.9%) of the survey responses were eliminated due to failure to meet one of any three attention check items in the survey. Therefore, a total of 153 (75.4%) surveys were used in the analysis of this research study. Table 1 contains the demographic information of the study participants.

Of the 153 participants, 111 (72.5%) identified as female, 40 (26.1%) identified as male, 1 (0.5%) identified as transgender female, and 1 (0.5%) identified as genderqueer. The participants ranged from the 22-25 year-old age group to the 38-41 year-old age group, with the most participants being from the 21-25 years (44.4%) and 26-29 years (44.4%) age groups. Eighty-seven (56.9%) participants identified as White/Caucasian, 34 (22.2%) identified as Asian/Asian American, 12 (7.8%) identified as Hispanic or Latino, 9 (5.9%) identified as Multiracial, 6 (3.9%) identified as Black/African American, 2 (1.3%) identified as Arab American/Middle Eastern, 2 (1.3%) identified as “Other,” and 1 (0.7%) identified as American

Table 1

*Frequencies and Percentages for Participant Demographic Variables (N = 153)*

| Category | Frequency | Percentage (%) |
|---|---|---|
| Gender | | |
| Female | 111 | 72.5 |
| Male | 40 | 26.1 |
| Transgender Female | 1 | 0.7 |
| Transgender Male | 0 | 0.0 |
| Genderqueer | 1 | 0.7 |
| Age in years | | |
| 22-25 | 68 | 44.4 |
| 26-29 | 68 | 44.4 |
| 30-33 | 12 | 7.8 |
| 34-37 | 4 | 2.6 |
| 38-41 | 1 | 0.7 |
| Race/Ethnicity | | |
| White/Caucasian | 87 | 56.9 |
| Black/African American | 6 | 3.9 |
| Hispanic or Latino American | 12 | 7.8 |
| Asian/Asian American | 34 | 22.2 |
| Arab American/Middle Eastern | 2 | 1.3 |
| American Indian/Alaska Native | 1 | 0.7 |
| Multiracial | 9 | 5.9 |
| Other | 2 | 1.3 |
| Sexual Orientation | | |
| Heterosexual | 138 | 90.2 |
| Gay/Lesbian | 9 | 5.9 |
| Bisexual | 2 | 1.3 |
| Other | 2 | 1.3 |
| Prefer not to answer | 2 | 1.3 |
| Year in Medical School or Residency | | |
| First | 25 | 16.3 |
| Second | 43 | 28.1 |
| Third | 39 | 25.5 |
| Fourth | 34 | 22.2 |
| Fifth or more | 3 | 2.0 |
| Residency | 9 | 6.0 |

Table 1 – continued

| Number of diversity training courses/workshops/seminars | | |
|---|---|---|
| None | 19 | 12.4 |
| One to two | 90 | 58.8 |
| Three to four | 32 | 20.9 |
| Five to six | 5 | 3.3 |
| Seven to eight | 1 | 0.7 |
| Nine or more | 3 | 2.0 |
| Prefer not to answer | 3 | 2.0 |

Indian/Alaska Native. When asked about sexual orientation, 138 (90.2%) participants identified as heterosexual, 9 (5.9%) identified as gay/lesbian, 2 (1.3%) participants identified as bisexual, 2 (1.3%) participants identified as "Other," and 2 (1.3%) participants did not respond.

Twenty-five (16.3%) participants reported that they were in their first year of medical school, 43 (28.1%) in their second year of medical school, 39 (25.5%) in their third year of medical school, 34 (22.2%) in their fourth year of medical school, 3 (2.0%) in their fifth year or more in medical school, 5 (3.3%) in their first year of residency, 1 (0.7%) in their second year of residency, and 3 (2.0%) in their third year of residency.

One hundred and thirty-one (85.6%) participants reported that they have participated in cultural diversity training, 19 (12.4%) participants reported that they have not participated in cultural diversity training, and 3 (2.0%) participants did not respond. Ninety (58.8%) participants indicated that they have had one to two diversity training courses/workshops/seminars, and 41 (26.9%) participants indicated that they have taken three or more diversity training courses/workshops/seminars. When asked to specify the types of cultural diversity training, participants could choose one or more responses. Fifteen (9.8%) participants indicated that they had taken a separate medical school course for credit, 105 (68.6%)

participants indicated that it was content covered in a medical school course, and 32 (20.9%) participants indicated that they attended a professional conference or seminar on cultural diversity. Seven of the ten participants completing residency indicated that cultural diversity was content covered during residency. Seventeen (11.1%) participants chose not to respond when asked to identify the types of cultural diversity training they have had and 18 (11.8) participants endorsed "Other," indicating that they had training during their undergraduate education or from a previous employer.

**Measures**

**Demographic and education information.** Participants were asked to provide information on gender, age, racial identification, ethnic identification, and sexual orientation. Participants were asked to identify the type of medical degree being pursued or that has been completed (i.e., M.D., D.O.), years in medical school or residency training, chosen or planned medical specialty, and how many and what type of cultural diversity training they have had throughout their education and training.

**Color-Blind Racial Attitudes Scale (CoBRAS).** The CoBRAS, developed by Neville et al. (2000) was used to assess the cognitive dimensions of color-blind racial attitudes of the participants. The scale is composed of three subscales. The first subscale, Racial Privilege, measures the blindness of the existence of White Privilege. This subscale is measured by seven items, e.g. "White people in the U.S. have certain advantages because of the color of their skin." The second subscale, Institutional Discrimination, measures the awareness of the implications of institutional forms of racial discrimination and exclusion. This subscale is also measured by seven items. A sample item from the second subscale is, "Due to racial discrimination, programs such as affirmative action are necessary to help create equality." The third subscale, Blatant

Racial Issues, measures the awareness of general, pervasive racial discrimination, and has six items. A sample item from the third subscale is, "Talking about race issues causes unnecessary tensions." The CoBRAS contains 20 items on a 6-point Likert-type scale, ranging from 1 (*strongly disagree)* to 6 (*strongly agree*). Several items are reversed scored. Item scores are added to obtain subscale scores and a total score. Higher scores on each of the CoBRAS subscales and the total score suggest greater: global belief in a just world, sociopolitical dimensions of a belief in a just world, racial and gender intolerance, and racial prejudice.

In validating the CoBRAS, Neville et al. (2000) reported internal consistency for the scores of .83 (Racial Privilege), .81 (Institutional Discrimination), .76 (Blatant Racial Issues), and .91 for entire scale. Studies that have utilized the CoBRAS scores have reported the following internal consistency estimates: .85 from a sample of mental health workers and psychology students (Neville, Spanierman, & Doan, 2006), .86 from a sample of White psychology trainees (Gushue & Constantine, 2007), .78 from a sample of undergraduate physical education students (Burden, Hodge, & Harrison, 2015), .89 from a sample of White social workers (Loya, 2011), and .88 from a sample of school counselors (Chao, 2013). A confirmatory factor analysis was conducted in the initial validation (Neville et al., 2000), using a variety of fit indices, including goodness-of-fit index (GFI, .90) and adjusted goodness-of-fit index (AGFI, .87). Based on these several fit indices, the three-factor oblique model was determined to have the best fit.

Neville et al. (2000) examined the concurrent and discriminant validity of the CoBRAS scores. Correlations between the CoBRAS factors and the Global Belief in a Just World Scale (GBJWS; Lipkus, 1991) and the sociopolitical subscale of the Multidimensional Belief in a Just World Scale (MBJWS; Furnham & Procter, 1988) ranged from .39 to .61. Regarding

discriminant validity, the Marlowe-Crowne Social Desirability Scale (MCSDS; Reynolds, 1982) was found not to have a strong association to the CoBRAS factors (r = .13). However, the Blatant Racial Issues scale of the CoBRAS was found to have a statistically significant relation with the MCSDS but only accounted for 4% of the variance at maximum.

Neville et al. (2000) also examined whether CoBRAS scores were sensitive to multicultural interventions. A year-long training for undergraduate students produced a statistically significant decrease in CoBRAS total scores. When examining for impact of a multicultural intervention on the three CoBRAS factors, the only significant effect was found for Racial Privilege. However, a majority of the sample were racial/ethnic minority students (i.e. Black, Asian American, and Hispanic) from a university on the West coast. The students in the sample were individuals interested and who volunteered for a program to be peer leaders on a racially diverse campus.

**Social Justice Scale (SJS).** The SJS (Torres-Harding et al., 2012) was used to assess attitudes towards social justice and social justice-related values and intentions to engage in social justice-related activities and behaviors. The SJS operationalizes social justice using Ajzen's (1991) social cognitive model, which is used to examine how attitudes translate into behaviors (Fietzer & Ponterotto, 2015). The first of four subscales is called Attitudes Towards Social Justice and it measures attitudes towards social justice, social justice-related values, and social justice-related behaviors, including empowerment, collaboration, power-sharing, self-determination, and facilitating access to resources for all. The Attitudes Towards Social Justice subscale consists of 11 items. A sample item from this subscale is, "I believe it is important to allow others to have meaningful input into decisions affecting their lives." The Perceived Behavioral Control subscale measures perceived behavioral control specifically referencing

social justice-related goals and not simply self-efficacy. This subscale has 14 items. A sample item from the Perceived Behavioral Control subscale is, "I am certain that I possess an ability to work with individuals and groups in ways that are empowering." The third subscale is called Subjective Norms. This six item subscale measures subjective norms around social justice concerns and whether people in the respondents' social context supported or discouraged participation in social justice-related activities. A sample item from this subscale is, "Other people around me are engaged in activities that address social justice issues." The fourth subscale is Behavioral Intentions and has 14 items. This subscale measures behavioral intentions to engage in social action or social justice-related activities. A sample item from the Behavioral Intentions subscale is, "In the future, I intend to talk with others about social power inequalities, social injustices, and the impact of social forces on health and well-being." The SJS has a total of 24 items across the four subscales and they are rated on a Likert-type scale from 1 (*disagree strongly*) to 7 (*strongly agree*). Scores are added together with a higher score indicating stronger attitudes and values on social justice and greater intent to engage in social justice-related activities and behaviors.

Torres-Harding et al. (2012) reported Cronbach's alphas for the scores on each of the subscales: Attitudes = .95, Subjective Norms = .82, Perceived Behavioral Control = .84, and Intentions = .88. Confirmatory factor analysis was initially ran for a four factor 29-item model using comparative fit index (CFI = .97), goodness of fit (GFI = .80), and RMSEA (.06). Five items indicated non-significant standardized estimates and were therefore eliminated. When confirmatory factor analysis was re-run, the new 24-item model indicated a RMSEA value of .09. Convergent and discriminant validity for the SJS scores were conducted between the subscales and the Public Service Motivation Scale (PSMS; Perry, 1996; Coursey & Pandey,

2007), the GBJWS (Lipkus, 1991), the Symbolic Racism Scale (SRS; Henry and Sears, 2002), and the Neosexism Scale (NSS; Tougas et al., 1995). All of the social justice subscales were positively correlated with the motivation to engage in public service ($r$ = .29 to .44), supporting the convergent validity of the scores. The subscales were negatively correlated with neosexism ($r$ = -.25 to -.44), symbolic racism ($r$ = -.19 to -.35), and global beliefs in a just world, ($r$ = -.16 to -.36) supporting the discriminant validity of the SJS scores.

**Cultural Competence Assessment (CCA).** The CCA (Schim et al., 2005) was developed specifically to assess the cultural competency of healthcare providers by measuring cultural diversity experience, awareness and sensitivity, and competence behaviors. The original CCA contained 45-items (Schim, Doorenbos, Miller, & Benkert, 2003). The CCA was revised to contain 25 items and is composed of two subscales. The Cultural Awareness and Sensitivity subscale (CAS; 11 items) examines provider knowledge about cultural groups and provider attitudes, values, and beliefs on culture relating to self and others. A sample item from the CAS subscale is, “Race is the most important factor in determining a person’s culture.” The Cultural Competence Behaviors subscale (CCB; 16 items) examines a provider’s diversity experience and observable outcomes of increased awareness and sensitivity. A sample item from the CCB subscale is, “Aspects of cultural diversity need to be assessed for each individual, group, and organization.” Each item is rated on a 5-point Likert-type rating from 1 (*strongly agree* or *always)* to 5 (*strongly disagree* or *never*). A total score can be calculated as well as scores for the two subscales by adding the items accordingly. A higher score indicates a higher level of cultural knowledge, more positive attitudes, and greater self-reported frequency of culturally competency behaviors.

Schim et al. (2003) found the internal consistency for the original CCA scores to be .92 for the total scale and .75 and .93 for the CAS and CCB, respectively. Doorenbos, Schim, Benkert, and Borse (2005) found Cronbach's alpha of the revised CCA scores for healthcare providers at .89 for the total scale and .75 and .91 for the CAS and CCB, respectively. Eigenvalues, scree test, factor correlation matrix, and well-defined loading of over .40 were used to select the number of CCA factors. A two-factor solution was determined to best reflect the healthcare provider data. For the revised CCA, 16 behavior items loaded onto the first factor and accounted for 38% of the total variance. On the second factor, 11 cultural awareness and sensitivity items loaded and accounted for 18% of the variance (Doorenbos et al., 2005) No other psychometric properties, convergent and discriminant validity, about the scale were available.

**Procedures**

After receiving doctoral committee and *Human Subjects Institutional Review Board* approval (Appendix A), staff at Midwestern medical schools with the rights of distributing information to the students were contacted via email of the purpose of this study (Appendix B). Upon meeting study review requirements and approval, Offices of Student Affairs distributed the recruitment email (Appendix C) to their students. The recruitment email provided information on the study and participation requirements, as well as a link to the survey website, Survey Monkey. The survey link was active for data collection between January 2018 and February 2018. In order to be included in the study, the following criteria needed to be met: (a) at least 18 years old, and (b) currently enrolled in an M.D. or D.O. program in the United States, or hold an M.D. or D.O. degree and currently be completing residency training in the United States. Individuals who did not meet the above criteria were excluded from the study. Participants were mainly recruited from a recruitment email distributed through medical school student list-servs

facilitated by schools' Office of Student Affairs. It appears that participants also forwarded the email to other medical students and resident physicians not included on the initial email list-servs, resulting in the participation of some medical students and resident physicians not affiliated with the medical schools contacted.

Prior to beginning the survey, participants were given an overview and purpose of study, reminded that participation is voluntary, and asked to read and check a box indicating informed consent (Appendix D). Participants were informed that they may exit the survey at any time without any consequences, and that their information would be kept confidential, other than their email address, should they choose to provide it to receive compensation. The participants were informed that only the researchers and a financial advisor associated with a research grant providing funding for the study would have access to the email addresses, and that these email addresses would not be linked to their survey responses. The terms *racial attitudes*, *social justice*, and *cultural competence* were not used on correspondence or on the informed consent to minimize response bias. Participants were informed that they would be completing a survey on the social attitudes of medical students and resident physicians in the United States and the relationship of these attitudes on patient care. Once consent was provided, participants were taken through an online survey consisting of several questionnaires, which included: (a) demographics and education (Appendix E), (b) the Color-Blind Racial Attitudes Scale, (c) the Social Justice Scale, and (d) the Cultural Competency Assessment. Online data collection has been shown to have quantitative and qualitative equivalence to paper-and-pencil methodology as participants do not significantly leave out more information or take a longer time completing forms on the Internet (Epstein, Klinkenberg, Wiley, & McKinley, 2001; Weigold, Weigold, & Russell, 2013). To prevent careless responding (Meade & Craig, 2012), there were three random

checks for attention that asked for participants to select a certain response (e.g. “Please select *Somewhat Disagree* for this item.”) Survey settings were selected so that every item on the survey had to have a response before final submission, thus participants had the option of *N/*A for every item if they not want to respond to any item. The average survey completion time was 12 minutes. As an incentive, participants were compensated with a $5 Starbucks e-giftcard for their participation in the study. A link to a separate Survey Monkey form was provided at the end of the study survey, which participants could click and enter their email address separately from their responses, to protect confidentiality.

# CHAPTER IV

# RESULTS

## Preliminary Data Analysis

Prior to testing the hypotheses, several analyses were conducted to ensure the accuracy of the data. First, data was checked to ensure that all values were within the expected range to identify potential data entry and score calculation errors. All categorial variables were dummy coded to be able to run regression analyses. The data was assessed for missing values and when data suggested that a participant exited the survey prior to completion (i.e., missing values for all remaining items after last response), these cases were removed from the sample ($n$ = 39). Once there were no incomplete cases, the data was tested for outliers. Using the Mahalanobis distance test (Tabachnick & Fidell, 1996) for analyses involving linear regression, outliers were identified using critical values dependent on the number of independent values. Three outliers were identified for the analyses for research questions 1, 2, and 4, and were removed. Six outliers were identified for the analyses in research question 3 and were removed.

Linearity and homoscedasticity assumptions of scores of the CoBRAS, SJS, and CCA were tested through visual inspection of the scatterplots. The result of the Kolmogorov-Smirnov statistic for the CCA scores indicated normality (Sig. value of more than .05), while the scores for the CoBRAS and SJS did not (Pallant, 2016, p. 63). However, upon examination of the Q-Q plots, deviation of the line appeared slight. Furthermore, skewness and kurtosis were below the standard cutoffs of 2 for skewness and 7 for kurtosis (Lomax, 2007), with the exception of the Attitudes Towards Social Justice subscale of the SJS. As the skewness and kurtosis for the entire SJS scale and the remaining variables were below the standard cutoff, these variables were retained.

To check for multicollinearity, VIF (Variance inflation factor) values were checked. VIF values above 10 indicate multicollinearity (Pallant, 2016, p.159). No variables in the analyses had a VIF greater than 10.

The reliability estimates of the scores for all measures are listed in Table 2. Scores for the CoBRAS and the SJS met the standard cutoff criteria of .70 (Nunnally, 1978). The reliability estimate score for the first subscale of the CCA was less than .70. The cases excluded from the second subscale reliability analysis of the CCA were greater than the number of cases analyzed, which is believed to be due to many of the participants in medical school not answering items related to cultural competence behaviors. Students who are not yet in clinical placements may have refrained from answering. Though the number of cases analyzed meets criteria for power analysis (effect size = .15, α level =.05, and power level = .8), the analyses using the CCA should be interpreted with caution.

Table 2

*Reliability Estimates (Cronbach's α) of Scale Scores*

| Scale | *Cronbach's α* | n |
|---|---|---|
| Color-Blind Racial Attitudes Scale (CoBRAS) | .91 | 143 |
| Racial Privilege | .86 | 148 |
| Institutional Discrimination | .78 | 144 |
| Blatant Racial Issues | .82 | 152 |
| Social Justice Scale (SJS) | .91 | 126 |
| Attitudes Towards Social Justice | .93 | 128 |
| Perceived Behavioral Control | .82 | 151 |
| Subjective Norms | .86 | 152 |
| Behavioral Intentions | .83 | 152 |
| Cultural Competency Assessment (CCA) | .88 | 74 |
| Cultural Awareness and Sensitivity | **.65** | 150 |
| Cultural Competence Behaviors | .91 | 74 |

Note. Reliability estimates in bold did not meet standard cutoff criteria of .70.

**Descriptive Statistics**

Means, standard deviations, skew, kurtosis, and bivariate correlations for the study variables were computed and are presented in Table 3. As the Kolmogorov-Smirnov test did not indicate normality for the CoBRAS and the SJS, Spearman's correlation was used for correlations. When examining the strength of the relationships for practical significance ($r_s > .30$), the number of cultural training experiences is positively correlated with total CCA scores ($r_s = .30$), all three factors of the CoBRAS scores had a positive relation to each other ($r_s = .68$ to $.89$), the total SJS scores had a negative correlation with the CoBRAS total and subscale scores ($r_s = -.42$ to $-.58$), the total SJS scores had a positive correlation with the total CCA scores and the two subscale scores ($r_s = .39$ to $.48$), and the total CCA scores had a very strong relation to the Cultural Competence Behaviors subscale scores ($r_s = .97$).

Independent t-tests and a one-way ANOVA was used to compare differences among participants using the demographic variables of age, gender, sexual orientation, and race/ethnicity, to determine if these variables led to significant differences in cultural competency. The one-way between-groups analysis of variance conducted to compare the CCA scores by age did not find a significant difference ($F$ (4, 148) = .88, $p$ = .48) in scores at the $p < .05$ between the four age groups: 22-25 years group ($M$ = 118.93, $SD$ = 19.10), 26-29 years group ($M$ = 123.35, $SD$ = 20.18), 30-33 years group ($M$ = 129.00, $SD$ = 21.41), or the 34-37 years group ($M$ = 119.00, $SD$ = 20.28). The independent samples t-test conducted to compare the CCA scores for males and females did not find a significant difference in scores for males ($M$ = 126.13, $SD$ = 19.07) and females ($M$ = 119.79, $SD$ = 19.84, $t$ (149) = -1.75, $p$ = .08, two-tailed). Sexual orientation was coded into a binary variable (heterosexual, non-heterosexual). There was a significant difference in scores for heterosexual participants

($M$ = 120.43, $SD$ = 19.63) and gay/lesbian/bisexual/other participants ($M$ = 133.47, $SD$ = 17.49, $t$ (151) = -2.47, $p$ =.02, two-tailed). The magnitude of the differences in the means (mean difference = -13.03, 95% *CI*: -23.48 to -2.58) was small (eta squared = .04). A one-way between-groups analysis of variance was conducted to explore the impact of race/ethnicity on cultural competency, as measured by the CCA. The case in which a participant identified as American Indian/Alaska Native was dropped from the ANOVA analysis as $n$ = 1. There was a statistically significant difference at the $p < .05$ level in CCA scores for race/ethnicity: $F$ (6, 145) = 3.20, $p$ = .01. The effect size, calculated using eta squared, was .12, a medium size effect. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the Multiracial group ($M$ = 106.33, $SD$ = 15.92) was significantly different from the "Other" identifying group ($M$ = 152.00, $SD$ = 11.31) as well as from the Hispanic or Latino group ($M$ = 135.08, $SD$ = 11.03). The White/Caucasian group ($M$ = 119.47, $SD$ = 19.44), Black/African American group ($M$ = 121.33, $SD$ = 16.17), Asian/Asian American group ($M$ = 124.68, $SD$ = 21.25) and Arab American/Middle Eastern group ($M$ = 128.00, $SD$ = 15.56) did not differ significantly from the Multiracial group. There were no significant differences in the CCA scores among all other groups. Race/ethnicity was then coded into a binary variable, White/Caucasian (Non-Hispanic/Latino) and Non-White/Caucasian. The independent samples t-test conducted to compare the CCA scores for the binary race variable did not find a significant difference in scores for White/Caucasian (Non-Hispanic/Latino) ($M$ = 119.77, $SD$ = 19.20) and Non-White/Caucasian ($M$ = 124.49, $SD$ = 20.39, $t$ (151) = -1.46, $p$ = .15, two-tailed).

Table 3

*Summary of Spearman's Correlations, Means, Standard Deviations, Range, Skew, and Kurtosis for Study Variables*

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Years | - | | | | | | | | | | | | | |
| 2. CDTE | .19* | - | | | | | | | | | | | | |
| 3. CoBRAS Total | .26** | .00 | - | | | | | | | | | | | |
| 4. CoBRAS RP | .18* | .02 | .88** | - | | | | | | | | | | |
| 5. CoBRAS ID | .20* | -.01 | .89** | .63** | - | | | | | | | | | |
| 6. CoBRAS BRI | .22** | -.04 | .85** | .70** | .68** | - | | | | | | | | |
| 7. SJS Total | -.09 | .16 | -.50** | -.44** | -.42** | -.58** | - | | | | | | | |
| 8. SJS ATSJ | -.07 | -.00 | -.49** | -.41** | -.46** | -.53** | .77** | - | | | | | | |
| 9. SJS PBC | .02 | .27** | -.31** | -.24** | -.22** | -.36** | .60** | .28** | - | | | | | |
| 10. SJS SN | -.04 | .03 | -.18* | -.14 | -.11 | -.27** | .68** | .30** | .25** | - | | | | |
| 11. SJS BI | -.20* | .09 | -.60** | -.57 | -.50** | -.57** | .80** | .58** | .59** | .36** | - | | | |
| 12. CCA Total | .07 | .30** | -.32** | -.23** | -.30** | -.28** | .48** | .22** | .60** | .26** | .49** | - | | |
| 13. CCA CAS | -.19* | .08 | -.41** | -.27** | -.36** | -.46** | .40** | .28** | .35** | .24** | .34** | .41** | - | |
| 14. CCA CCB | .13 | .29** | -.23** | -.17* | -.22** | -.17* | .39** | .14 | .54** | .22** | .42** | .97** | 19* | - |
| *M* | 2.83 | 2.25 | 44.28 | 16.63 | 17.84 | 10.14 | 146.39 | 69.35 | 30.45 | 21.88 | 24.31 | 121.71 | 66.76 | 54.95 |
| *SD* | 1.32 | .89 | 14.92 | 6.60 | 6.41 | 4.34 | 13.68 | 8.11 | 3.38 | 4.77 | 3.66 | 19.77 | 5.16 | 18.28 |
| Range | 1-6 | 1-6 | 20-86 | 7-38 | 7-35 | 6-26 | 95-167 | 18-76 | 21-35 | 4-28 | 8-28 | 76-166 | 50-77 | 13-96 |
| Skew | .56 | 1.73 | .67 | .81 | .38 | 1.36 | -1.07 | -2.66 | -.48 | -.90 | -1.41 | .11 | -.53 | .02 |
| Kurtosis | -.06 | 5.26 | -.08 | .33 | -.35 | 1.92 | 1.66 | 11.44 | -.38 | .70 | 2.85 | -.44 | .52 | -.47 |

Note. Years = Years in school/training; CDTE = Number of cultural diversity training experiences; $^{*}p < .05$, $^{**}p <. 01$

**Hypothesis Testing**

**Research question 1.** Does a relationship exist between the number of years in school/training, the number of cultural diversity training experiences, and the self-reported cultural competency in U.S. medical students and resident physicians?

> Hypothesis 1: U.S. medical students and resident physicians with greater numbers of cultural diversity training experiences will report higher levels of cultural competency.

Hierarchical multiple regression was used to assess the ability of two educational variables, number of years in school/training and number of cultural diversity training experiences, to predict self-reported cultural competency, after controlling for demographic variables. Gender, age, race/ethnicity, and sexual orientation were entered as the first block of the regression. Table 4 provides the results of the hierarchical multiple regression analysis in which numbers of years in school/training and number of cultural diversity training experiences were entered as the predictor variables, while controlling for demographic variables. The results indicate that the hierarchical regression equation was statistically significant, $F(6, 138) = 2.93$, $p = .01$, $R^2 = .11$. Support was found for main effect of number of cultural diversity training experiences ($\beta = .26$, $p < .01$) on cultural competency, controlling for gender, age, race/ethnicity, and sexual orientation. In this model, only number of cultural diversity training experiences was statistically significant.

Table 4

*Summary of Hierarchical Regression Analyses for Years in School/Training and CDTE Predicting Cultural Competency (N = 145)*

| Model | *B* | Std. Error | Beta | *t* | Sig. |
|---|---|---|---|---|---|
| 1 (Constant) | 96.88 | 9.69 | | 10.00 | .00 |
| Gender | 5.54 | 3.85 | .12 | 1.44 | .15 |
| Age | 1.46 | 2.40 | .05 | .61 | .54 |
| Race/Ethnicity | 4.55 | 3.34 | .12 | 1.36 | .18 |
| Sexual Orientation | 6.99 | 5.86 | .10 | 1.19 | .24 |
| 2 (Constant) | 87.31 | 9.97 | | 8.76 | .00 |
| Gender | 4.59 | 3.76 | .10 | 1.22 | .22 |
| Age | 1.29 | 2.42 | .05 | .53 | .60 |
| Race/Ethnicity | 3.58 | 3.27 | .09 | 1.10 | .28 |
| Sexual Orientation | 4.87 | 5.75 | .07 | .85 | .40 |
| Years in school/training | -.08 | 1.25 | -.01 | -.06 | .95 |
| CDTE | 6.93 | 2.23 | .26 | 3.11 | .00 |

*Note.* CDTE = Number of cultural diversity training experiences (courses, seminars, workshops). For the Race/Ethnicity variable, participants were coded as "White/Caucasian (Non-Hispanic/Latino)" or "Non-White/Caucasian." For the Sexual Orientation variable, participants were coded as "Heterosexual" or "Non-heterosexual."

Model 1: Multiple $R$ = .23 $R^2$ = .05 Adjusted $R^2$ = .02 $R^2$ Change = .05
$F_{Change}$ (4, 140) = 1.83 $p$ = .13
Model 2: Multiple $R$ = .34 $R^2$ = .11 Adjusted $R^2$ = .07 $R^2$ Change = .06
$F_{Change}$ (2, 138) = 4.93 $p$ = .01

**Research question 2.** Does a relationship exist between the color-blind racial attitudes and U.S. medical students' and resident physicians' self-reported cultural competency?

Hypothesis 2a: U.S. medical students and resident physicians with higher levels of color-blind racial attitudes will report lower levels of cultural competency.

To test hypothesis 2a, total scores on the CoBRAS (Neville et al., 2000) were added in the third step of the hierarchical multiple regression with self-reported cultural competency as the criterion variable. These results are presented in Table 5. The results indicate that the hierarchical regression equation was statistically significant, F (7, 136) = 4.10, $p < .01$, $R^2$ = .17. Support was found for main effect of color-blind racial attitudes ($\beta$ = -.26, $p < .01$) on cultural

competency, controlling for demographic and educational variables. In the final model, color-blind racial attitudes and CTDE were significant.

Table 5

*Summary of Hierarchical Regression Analyses for CoBRAS Scores Predicting Cultural Competency (N = 145)*

| Model | *B* | Std. Error | Beta | *t* | Sig. |
|---|---|---|---|---|---|
| 3 (Constant) | 116.11 | 10.53 | | 11.03 | .00 |
| Gender | 8.33 | 3.87 | .19 | 2.15 | .03 |
| Age | .88 | 2.11 | .03 | .42 | .68 |
| Race/Ethnicity | .91 | .63 | .12 | 1.44 | .15 |
| Sexual Orientation | 7.11 | 7.14 | .08 | 1.00 | .32 |
| Years in school/training | .81 | 1.25 | .06 | .65 | .52 |
| CDTE | 6.17 | 2.18 | .23 | 2.83 | .01 |
| Total CoBRAS score | -.34 | .11 | -.26 | -3.18 | .00 |

*Note.* CDTE = Number of cultural diversity training experiences (courses, seminars, workshops). For the Race/Ethnicity variable, participants were coded as "White/Caucasian (Non-Hispanic/Latino)" or "Non-White/Caucasian." For the Sexual Orientation variable, participants were coded as "Heterosexual" or "Non-heterosexual."
Model 3: Multiple $R = .42$ $R^2 = .17$ Adjusted $R^2 = .13$ $R^2$ Change = .06
$F_{Change}$ (1, 139) = 10.09 $p = .00$

Hypothesis 2b: Attitudes on institutional discrimination will better predict higher levels of self-reported cultural competency in U.S. medical students and resident physicians than attitudes on racial privilege and racial issues.

The CoBRAS subscales (Neville et al., 2000) were entered as the third step of the hierarchical regression with self-reported cultural competency as the criterion variable. Table 6 provides the results of the hierarchical multiple regression analysis in which the scores of the CoBRAS subscales were entered as the predictor variables, while controlling for gender, age, race/ethnicity, sexual orientation, years in school/training, and CTDE. The results indicate that the hierarchical regression equation was statistically significant, $F(9, 135) = 3.72$, $p < .01$, $R^2 = .20$. Support was found for main effect of the second subscale of the CoBRAS, Institutional Discrimination ($\beta = -.35$, $p < .01$) on self-reported cultural

competency. In the final model, gender was also statistically significant, indicating the presence of an interaction effect .

Table 6

*Summary of Hierarchical Regression Analyses for CoBRAS Subscale Scores Predicting Cultural Competency (N = 145)*

| Model | *B* | Std. Error | Beta | *t* | Sig. |
|---|---|---|---|---|---|
| 3 (Constant) | 97.89 | 10.65 | | 9.19 | .00 |
| Gender | 7.87 | 3.73 | .18 | 2.11 | .04 |
| Age | .93 | 2.35 | .03 | .40 | .69 |
| Race/Ethnicity | 3.83 | 3.17 | .10 | 1.21 | .23 |
| Sexual Orientation | 5.48 | 5.54 | .08 | 0.99 | .32 |
| Years in school/training | .63 | 1.22 | .04 | 0.51 | .61 |
| CDTE | 6.22 | 2.17 | .23 | 2.87 | .01 |
| CoBRAS – RP | .25 | .38 | .08 | .67 | .50 |
| CoBRAS – ID | -1.06 | .34 | -.35 | -3.11 | .00 |
| CoBRAS – BRI | -.05 | .58 | -.01 | -.08 | .94 |

*Note.* CDTE = Number of cultural diversity training experiences (courses, seminars, workshops). For the Race/Ethnicity variable, participants were coded as "White/Caucasian (Non-Hispanic/Latino)" or "Non-White/Caucasian." For the Sexual Orientation variable, participants were coded as "Heterosexual" or "Non-heterosexual."
Model 3: Multiple $R = .45$ $R^2 = .20$ Adjusted $R^2 = .15$ $R^2$ Change = .09
$F_{Change}$ (3, 135) = 4.81 $p = .00$

**Research question 3.** Does a relationship exist between social justice attitudes and U.S. medical students' and resident physicians' self-reported cultural competency?

Hypothesis 3a: U.S. medical students and resident physicians with higher levels of social justice attitudes will report higher levels of cultural competency.

To test hypothesis 3a, total scores on the SJS (Torres-Harding et al., 2012) were added in the third step of the hierarchical multiple regression with self-reported cultural competency as the criterion variable. Table 7 provides the results of the hierarchical multiple regression analysis in which numbers of total SJS scores were entered as the predictor variable, while controlling for years in school/training, number of cultural diversity training experiences, gender, age, race/ethnicity, and sexual orientation. The results indicate that the hierarchical regression

equation was statistically significant, F (7, 137) = 6.67, $p < .01$, $R^2 = .25$. Support was found for main effect of social justice attitudes ($\beta = .39$, $p < .01$) on cultural competency, controlling for demographic and educational variables. In the final model, social justice attitudes and CDTE were significant.

Table 7

*Summary of Hierarchical Regression Analyses for Total SJS Scores Predicting Cultural Competency (N = 145)*

| Model | *B* | Std. Error | Beta | *t* | Sig. |
|---|---|---|---|---|---|
| 3 (Constant) | 7.89 | 18.09 | | .44 | .66 |
| Gender | 5.32 | 3.47 | .12 | 1.54 | .13 |
| Age | 2.15 | 2.24 | .08 | .96 | .34 |
| Race/Ethnicity | 1.93 | 3.02 | .05 | .64 | .52 |
| Sexual Orientation | 3.85 | 5.29 | .06 | 0.73 | .47 |
| Years in school/training | .56 | 1.16 | .04 | 0.48 | .63 |
| CDTE | 4.73 | 2.10 | .18 | 2.25 | .03 |
| Total SJS score | .56 | .11 | .39 | 5.09 | .00 |

*Note.* CDTE = Number of cultural diversity training experiences (courses, seminars, workshops). For the Race/Ethnicity variable, participants were coded as "White/Caucasian (Non-Hispanic/Latino)" or "Non-White/Caucasian." For the Sexual Orientation variable, participants were coded as "Heterosexual" or "Non-heterosexual."
Model 3: Multiple $R = .50$ $R^2 = .25$ Adjusted $R^2 = .22$ $R^2$ Change = .14
$F_{Change}$ (1, 137) = 25.95 $p = .00$

Hypothesis 3b: Attitudes towards social justice will better predict higher levels of self-reported cultural competency in U.S. medical students and resident physicians than social justice self-efficacy, subjective social justice norms, and intentions to act for social justice.

The SJS subscales (Torres-Harding et al., 2012) were entered as the third step of the hierarchical regression with self-reported cultural competency as the criterion variable. Table 8 provides the results of the hierarchical multiple regression analysis in which the scores of the SJS subscales were entered as the predictor variables, while controlling for demographic and educational variables. The results indicate that the hierarchical regression equation was

statistically significant, F (10, 131) = 8.46, $p < .01$, $R^2 = .39$. Support was found for main effect of the second subscale of the SJS, Perceived Behavioral Control ($\beta = .45$, $p < .01$) on self-reported cultural competency. In the final model, only the SJS subscale of Perceived Behavioral Control was statistically significant.

Table 8

*Summary of Hierarchical Regression Analyses for SJS Subscale Scores Predicting Cultural Competency (N = 142)*

| Model | *B* | Std. Error | Beta | *t* | Sig. |
|---|---|---|---|---|---|
| 3 (Constant) | 1.23 | 19.82 | | .06 | .95 |
| Gender | 1.70 | 3.42 | .04 | .50 | .62 |
| Age | 1.41 | 2.12 | .05 | .67 | .51 |
| Race/Ethnicity | 1.34 | 2.88 | .03 | .46 | .64 |
| Sexual Orientation | 3.31 | 4.87 | .05 | 0.68 | .50 |
| Years in school/training | .67 | 1.08 | .05 | 0.62 | .53 |
| CDTE | 2.54 | 2.05 | .09 | 1.24 | .22 |
| SJS – ATSJ | -.20 | .28 | -.07 | -.74 | .46 |
| SJS – PBC | 2.73 | .54 | .45 | 5.05 | .00 |
| SJS – SN | .50 | .34 | .11 | 1.47 | .14 |
| SJS – BI | .87 | .65 | .15 | 1.35 | .18 |

*Note.* CDTE = Number of cultural diversity training experiences (courses, seminars, workshops). For the Race/Ethnicity variable, participants were coded as "White/Caucasian (Non-Hispanic/Latino)" or "Non-White/Caucasian." For the Sexual Orientation variable, participants were coded as "Heterosexual" or "Non-heterosexual."
Model 3: Multiple $R = .63$ $R^2 = .39$ Adjusted $R^2 = .35$ $R^2$ Change = .28
$F_{Change}$ (4, 131) = 15.24 $p = .00$

**Research question 4.** Does a relationship exist between color-blind racial ideology, social justice attitudes, demographic variables, educational variables, and the self-reported cultural competency in U.S. medical students and resident physicians?

Hypothesis 4: A lower level of color-blind racial ideology, a higher level of social justice attitudes, female gender, non-White racial/ethnic identity, non-heterosexual sexual orientation, and more experiences with cultural diversity training will be associated with a higher level of self-reported cultural competency in U.S. medical students and resident physicians.

Both the CoBRAS scores (Neville et al., 2000) and the SJS scores were entered as the third step of the hierarchical regression with self-reported cultural competency as the criterion variable. Table 9 provides the results of the hierarchical multiple regression analysis in which the scores of the CoBRAS and the SJS were entered as the predictor variables, while controlling for gender, age, race/ethnicity, sexual orientation, years in school/training, and CTDE. The results indicate that the hierarchical regression equation was statistically significant, $F(8, 135) = 5.79$, $p < .01$, $R^2 = .26$. Support was found for main effect of the SJS scores ($\beta = .36$, $p < .01$) on self-reported cultural competency. In the final model, CDTE and SJS scores were statistically significant.

Table 9

*Summary of Multiple Regression Analyses for Total CoBRAS and SJS Scores Predicting Cultural Competency (N = 145)*

| Model | *B* | Std. Error | Beta | *t* | Sig. |
|---|---|---|---|---|---|
| 1 (Constant) | 16.17 | 24.63 | | .66 | .51 |
| Gender | 5.70 | 3.57 | .13 | 1.60 | .11 |
| Age | 1.92 | 2.30 | .07 | .84 | .41 |
| Race/Ethnicity | 1.94 | 3.04 | .05 | .64 | .52 |
| Sexual Orientation | 3.89 | 5.33 | .06 | 0.73 | .47 |
| Years in school/training | .68 | 1.19 | .05 | 0.57 | .57 |
| CDTE | 4.74 | 2.11 | .18 | 2.24 | .03 |
| Total CoBRAS score | -.06 | .13 | -.05 | -.50 | .62 |
| Total SJS scores | .52 | .14 | .36 | 3.84 | .00 |

*Note.* CDTE = Number of cultural diversity training experiences (courses, seminars, workshops). For the Race/Ethnicity variable, participants were coded as "White/Caucasian (Non-Hispanic/Latino)" or "Non-White/Caucasian." For the Sexual Orientation variable, participants were coded as "Heterosexual" or "Non-heterosexual."
Model: Multiple $R = .51$ $R^2 = .26$ Adjusted $R^2 = .21$

# CHAPTER V

# DISCUSSION

The purpose of this study was to examine the predictive nature of color-blind racial attitudes, as measured by the CoBRAS (Neville et al., 2000), and social justice attitudes, as measured by the SJS (Torres-Harding et al., 2012) on self-reported cultural competency, as measured by the CCA (Schim et al., 2005) in U.S. medical students and resident physicians. A secondary purpose of this study was to examine the relationship between demographic variables (gender, age, race/ethnicity, and sexual orientation) and educational variables (numbers of years in school/training and number of cultural diversity training experiences) on self-reported cultural competency. Four hypotheses were tested, and two hypotheses were fully supported and two hypotheses were partially supported. Specifically, Hypothesis 1, which tested whether number of cultural diversity training experiences but not number of years in school/training would be a predictor of self-reported cultural competency, was supported. Hypothesis 2, which tested whether color-blind racial attitudes predicted self-reported cultural competency, specifically the CoBRAS (Neville et al., 2000) subscale of Institutional Discrimination, was supported. Hypothesis 3, which examined whether social justice attitudes predicted cultural competency, specifically the SJS (Torres-Harding et al., 2012) subscale of Attitudes Towards Social Justice, was partially supported. Hypothesis 4, which explored what combination of color-blind racial attitudes, social justice attitudes, demographic variables, and educational variables best predicted self-reported cultural competency, was partially supported. A discussion of the findings, limitations, implications for practice, and future research follow.

**Education on Cultural Competency**

The findings indicate that number of cultural diversity training experiences, but not number of years in school/training, predict self-reported cultural competency in U.S. medical students and resident physicians when demographic variables (age, gender, race/ethnicity, and sexual orientation) are controlled. It appears that medical students do not gain an increase in cultural competency as they go through their education and training without increased exposure to cultural diversity training experiences. For every plus one above the mean of number of cultural diversity training experiences ($M$ = 2.25; $SD$ = .89), it is predicted with confidence that cultural competency will go up by .26 (β). Greater cultural competency being related to increased exposure to cultural diversity training experiences is consistent with findings from past research (Browne et al., 2002). These results support past findings that medical school experience alone does not increase cultural competency (Loue et al., 2015).

**Color-Blind Racial Attitudes on Cultural Competency**

The findings indicate that color-blind racial attitudes, as measured by the CoBRAS (Neville et al., 2000), are a statistically significant predictor of self-reported cultural competency, as measured by the CCA (Schim et al., 2005). This finding is consistent with what was expected and confirms prior research (Neville et al., 2013; Richeson & Nussbaum, 2004). As demographic variables (age, gender, race/ethnicity, sexual orientation) and educational variables (number of years in school/training, number of cultural diversity training experiences) were entered as co-variates, number of cultural diversity training experiences remained a significant predictor and gender was indicated as a significant predictor. There has been some research that finds men score higher than women on some subscales of the CoBRAS (Paone, Malott, & Barr,

2015), indicating that they have greater levels of racial color-blind attitudes. Regarding the current study's results, for every plus one above the mean of color-blind racial attitudes ($M$ = 44.28; $SD$ = 14.92), it can be predicted with confidence that cultural competency will go down by -.26 (β). Gender was found to contribute .19 (β) to self-reported cultural competency.

When the subscales of the CoBRAS (Neville et al., 2000) were examined for their relationship to self-reported cultural competency, when controlling for demographic and educational variables, the subscale *Institutional Discrimination* was found to be a statistically significant predictor. It appears that the more awareness around institutional discrimination e.g. need for policies such as affirmative action, the higher cultural competency is reported. For every plus one above the mean of attitudes related to racial color-blindness around *Institutional Discrimination* ($M$ = 17.84; $SD$ = 6.41), it is predicted with confidence that self-reported cultural competency will go down -.35 (β). Gender was again significant and contributes .18 (β) as a significant predictor. It appears that gender is a moderator of color-blind racial attitudes, specifically related to attitudes around institutional discrimination.

**Social Justice Attitudes on Cultural Competency**

The findings indicate that social justice attitudes, as measured by the SJS (Torres-Harding et al., 2012), are a statistically significant predictor of self-reported cultural competency, which is consistent with what was expected and confirms prior research (Lewis et al., 2012). The demographic variables and educational variable of number of years in school/training were not significant predictors when considered alongside social justice attitudes. For every plus one above the mean of social justice attitudes ($M$ = 146.39; $SD$ = 13.68), it can be predicted with confidence that self-reported cultural competency will go up by .39 (β).

The subscales of the SJS (Torres-Harding et al., 2012) were examined for their relationship to self-reported cultural competency, when controlling for demographic and educational variables. The subscale of *Perceived Behavioral Control* was found to be the only subscale that was a statistically significant predictor of cultural competency. This was not consistent with what was hypothesized, which was that the subscale of *Attitudes Towards Social Justice* would be a significant predictor. The *Perceived Behavioral Control* subscale measures a person's self-efficacy and goals in acting for social justice, and it appears that endorsement of capability to act for social justice predicts self-reported cultural competency, and social justice attitudes do not. As there was a small, statistically significant positive correlation between the *Attitudes Towards Social Justice* and the *Perceived Behavioral Control* subscales, it is possible that the latter subscale identified participants with some higher levels of social justice attitudes as well as belief that they can act in ways aligning with social justice and setting social justice-related goals, which in turn, led to their reporting of higher levels of cultural competency. The findings indicate that for every plus one above the mean of social justice attitudes related to *Perceived Behavioral Control* ($M$ = 30.45; $SD$ = 3.38), it can be predicted with confidence that cultural competency will go up by .45 (β). Other than number of cultural diversity training experiences, no other demographic or educational co-variate was found to be statistically significant.

**Demographic Variables, Educational Variables, Color-Blind Racial Attitudes, and Social Justice Attitudes on Cultural Competency**

The findings indicate that when demographic variables (age, gender, race/ethnicity, sexual orientation), educational variables (number of years in school/training, number of cultural diversity training experiences), CoBRAS (Neville et al., 2000) total scores, and SJS (Torres-Harding et al., 2012) total scores are examined for what combination of variables best predict

cultural competency, only the number of cultural diversity training experiences and SJS total score are statistically significant. The results were contrary to what was expected; it was predicted that being female, non-White, and non-heterosexual, with a greater number of cultural diversity training experiences, a lower level of color-blind racial attitudes, and a higher level of social justice attitudes would significantly predict a higher level of cultural competency. This combination was predicted as these demographic identities are not majority-culture and/or are societally oppressed. As previous analyses demonstrated, the demographic variables of race/ethnicity and sexual orientation are not significant predictors of cultural competency. Gender was only significant when color-blind racial attitudes, as measured by the CoBRAS, was examined without the variable of social justice attitudes added. The number of cultural diversity training experiences continued to be a significant predictor, contributing .18 (β) of the variance. As this analysis involved all of the variables entered together, the CoBRAS total score was no longer a significant predictor, though total SJS score was. Total SJS score was found to significantly contribute .36 (β) to the total variance.

It is possible that what participants endorse as being related to cultural competency is a more general and broad understanding of discrimination and equality, rather than attitudes specific to race and racism, particularly involving racial self-awareness and reflection. As the CoBRAS (Neville et al., 2000) subscale of *Institutional Discrimination* was found to be statistically significant over the subscales of *Racial Privilege* and *Blatant Racial Issues* in a previous analysis, it is possible that participants' beliefs related to institutional discrimination are better accounted for by their attitudes and beliefs related to social justice, and not specifically racial ideology. This may suggest that despite a greater number of cultural diversity training experiences, medical students and resident physicians reporting a higher level of cultural

competency do not develop awareness of racial privilege and issues of racism, and/or do not see these matters as related to cultural competency.

**Limitations**

This study contained some limitations. A limitation of the current study was the use of a convenience sample, which may have contributed to under-representation or over-representation of particular groups within the sample. Participants were mostly from the Midwest and their medical school curriculum and training experiences may be considerably different than medical students and resident physicians in other areas of the United States. Thus, the results from this study may not be generalizable to medical students and resident physicians throughout the country.

Another limitation of this study is related to the distribution of the sample. A part of this study was to examine if there are any differences between participants in medical school and participants completing residency training. Ninety-four percent of this study's sample consisted of medical students, which affects the results from being generalizable to resident physicians.

The self-report nature of the collected data is another limitation of the study. As with any study utilizing self-report measures, this study was vulnerable to the following issues: a) bias due to a participant responding in a socially desirable manner, b) a reflection of anticipated behavior rather than actual behaviors, and c) interpretation of measure items that is different than what was originally intended by the authors. As cultural issues are often associated with competency as a medical professional, the topic of the study and nature of measure items may have increased tendencies to respond in a socially desirable manner (Paradies et al., 2013).

Another limitation of the study was the measure for the dependent variable, the CCA (Schim et al., 2005). Though the data was analyzed with 153 participants, only 74 completed all

of the items on the CCA. This was observed to particularly be true for the second subscale, *Cultural Competence Behaviors*, as it is believed that many of the medical student participants may still be in knowledge-based courses and have not yet begun clinical training. Without experience in direct work with patients, many participants may have refrained from endorsing items pertaining to behaviors. The first subscale, *Cultural Awareness and Sensitivity*, had a Cronbach alpha reliability score (.65) below the preferred cutoff of .70, further contributing to some issues with using the CCA to measure the dependent variable in this study.

**Implications for Practice**

Despite the limitations of the study, the findings have implications for future curriculum-development and training of medical students and resident physicians. The number of cultural diversity training experiences was shown to be statistically significant in the relationship to higher levels of self-reported cultural competency. This finding indicates that the more cultural competency learning medical students or resident physicians receive, the greater self-efficacy they will have related to cultural competency. It may be beneficial to require a number of different cultural diversity learning experiences, such as separate courses, workshops, seminars, conferences, etc., to help increase cultural competency in this population. In particular, the separate course model can be effective in strengthening cultural competency. As indicated in the related literature, cultural competency is typically viewed by medical students as an adjunct component of learning when compared to other curriculum that is vigorously studied and tested through examinations and certifications (Kumagai, 2008). Having separate and dedicated courses for cultural competency would likely emphasize the importance of this learning. A separate course model would also allow for the standardization of curriculum, ensuring that

medical students across programs receive a similar standard of cultural competency learning and that curriculum is not left to the discretion of faculty and administrators.

The findings of this study indicate that medical school curriculum and training experiences could incorporate a greater level of learning around race, racism, and color-blind racial attitudes. It appears that many students and resident physicians endorse beliefs around social justice and they do not seem to condone broad and general practices of discrimination, but this is not significantly associated with awareness around racial privilege and blatant racial issues. Participants may be affected by societal messages of being in a "post-racial era" (Bonilla-Silva, 2015) in which race in not seen as in and of itself to be greatly affecting patients and their health. Racial color-blindness, sometimes promoted as an ideal, is not readily recognized as a form of racism. As resident physicians have been shown to more often attribute patient shortcomings as an obstacle to culturally competent communication than they do their own shortcomings or systemic factors (Shapiro et al., 2002), it would likely be beneficial to help medical students to increase their awareness around societal racism and to be self-reflective about how their own attitudes have been shaped by this socialization. To intellectually understand color-blindness is different than being deeply aware of its presence (Chao, Wei, Good, & Flores, 2011).

Related to the need to increase awareness around the negative effects of racial color-blindness, medical students and resident physicians seem to readily endorse social justice attitudes and behaviors. This finding may be helpful when developing curriculum and training materials, as it can be effective to build upon the material that medical students and resident physicians are already receiving and to further incorporate material on racial color-blindness and

racism. Taking curriculum that already appears effective and adding in material that will further strengthen it will likely lead to greater utility.

In addition, there would likely be benefit to interdisciplinary dialogue related to cultural competency education and training. In collaborating with other fields, such as nursing and psychology, healthcare providers collectively can develop cultural competency education, utilizing research between the fields. With increased collaboration and sharing of research and knowledge, healthcare can become more comprehensive and better-equipped to address health disparities.

**Future Research Directions**

While the findings of this study contribute to a body of research on cultural competency in healthcare, there remains questions on how to increase attitudes and self-awareness related to cultural competency and on how to reduce health disparities. To increase validity, the current study should be replicated. Participants from outside the Midwest should be recruited for replication studies to examine similarities and differences between regions in the United States. In addition to replication, further information may be obtained by measuring the independent and dependent variables utilizing different measures other than the CoBRAS (Neville et al., 2000), SJS (Torres-Harding et al., 2012), and the CCA (Schim et al., 2005).

As a majority of the participants in this study were female (72.5%), between the ages of 22 and 29 years (88.8%), and White (56.9%), it would be valuable to replicate this study with different sample demographics. The results may differ if the sample were to be predominantly male or if older medical students and resident physicians participated. This study would likely yield different results had participants been recruited from medical schools associated with historically Black colleges and universities, or from medical schools in areas of the United States

in which racial and ethnic minority populations are a majority, e.g. particular counties in California or Arizona, Hawaii.

It is recommended that future research consider how to measure cultural competency outside of self-report. Due to the possibility of bias related to social desirability, an important aspect to examine is cultural competency observed by others. While this study focused on attitudes, future research can examine cultural competent behaviors more explicitly by obtaining observer-report (e.g., medical school faculty, attending physicians, patients). Finding ways to measure patients' perceptions and experiences of their physicians' cultural competency may be helpful in providing understanding on the extent provider attitudes and beliefs result in culturally effective and sensitive interactions.

To assess additional aspects of cultural competency learning in medical schools and residency programs, research on faculty and instructor attitudes would be beneficial. Future research can examine faculty attitudes on issues pertaining to racism in healthcare and on social justice, as well as their self-efficacy in teaching these topics. For systematic change, faculty attitudes may need to be examined to see how they align with AAMC and LCME standards calling for cultural understanding and competency. Well-informed faculty who value cultural competency in addressing health disparities would likely increase learning and training efficacy of students.

Future research may also consider measuring the effectiveness of cultural competency education and training by examining outcomes related to a reduction in health disparities. Students, trainees, faculty, boards and committees involved in curriculum and training decisions may be more motivated to thoroughly examine cultural competency needs and requirements should research demonstrate a significant connection between cultural competency efforts and

health disparities measures. Such outcome variables may include increased access, reduction in disease rates and prevalence, and lower mortality rates.

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# APPENDIX A

## HSIRB Approval Letter

# Appendix A: HSIRB Approval

WESTERN MICHIGAN UNIVERSITY

Human Subjects Institutional Review Board

Date: October 9, 2017

To: Joseph Morris, Principal Investigator
Jennifer Hahm, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 17-09-43

This letter will serve as confirmation that your research project titled "Color-Blind Racial Ideology, Social Justice Attitudes, and Cultural Competency in U.S. Medical Students and Residents" has been **approved** under the **exempt** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may **only** be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., ***you must request a post approval change to enroll subjects beyond the number stated in your application under "Number of subjects you want to complete the study***)." Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

**Reapproval of the project is required if it extends beyond the termination date stated below.**

The Board wishes you success in the pursuit of your research goals.

**Approval Termination:** **October 8, 2018**

1903 W. Michigan Ave., Kalamazoo, MI 49008-5456
PHONE: (269) 387-8293 FAX: (269) 387-8276
CAMPUS SITE: 251 W. Walwood Hall

# APPENDIX B

## Email to Offices of Student Affairs

## Appendix B: Email to Offices of Student Affairs

Hello,

My name is Jennifer Hahm and I am a doctoral candidate in the department of Counselor Education and Counseling Psychology at Western Michigan University. I am currently conducting research for my dissertation. I am looking for medical students and resident physicians to complete my online survey on social attitudes and effect on patient-care. It takes around 10 to 15 minutes to complete and every participant receives a $5 Starbucks e-giftcard for their time. Participants are not asked to provide any identifying information, e.g. school or training program, to ensure confidentiality. I was wondering if your office would be willing to forward my recruitment email to your students, and they could decide if they would like to participate or not, with no obligation. Please let me know your thoughts. Thank you!

Kindly,

Jennifer Hahm

Doctoral Candidate, Counseling Psychology

Department of Counselor Education and Counseling Psychology

Western Michigan University

# APPENDIX C

## Recruitment Email

## Appendix C: Recruitment Email

Dear Medical Students and Resident Physicians,

My name is Jennifer Hahm and I am a fifth year Counseling Psychology doctoral candidate at Western Michigan University. I am seeking participants for my dissertation, which is under the supervision of Dr. Joseph R. Morris. The purpose of this study is to explore the social attitudes of medical students and resident physicians, and how they affect patient-care. Participation in the study involves completing an online survey that will take approximately 10-15 minutes. If you complete the survey, you will have the option to enter your email address for a $5 Starbucks e-giftcard.

Please note: This study is open to participants who are currently enrolled students in M.D. or D.O. programs in the United States and to those with an M.D. or D.O. degree currently completing residency training programs in the United States.

This project has been approved by the Institutional Review Board (HSIRB #17-09-43) at Western Michigan University. If you wish to participate in the study, please click the link below to access the survey.

Link: https://www.surveymonkey.com/r/PVX78RX

Thank you for your time and interest!

Kindly,

Jennifer Hahm

Doctoral Candidate, Counseling Psychology

Department of Counselor Education and Counseling Psychology

Western Michigan University

# APPENDIX D

## Anonymous Consent Form

## Appendix D: Anonymous Survey Informed Consent Form

Social Attitudes of Medical Students and Resident Physicians

Informed Consent

Thank you for your interest in participating in this study. Please read the following informed consent document before proceeding.

ELIGIBILITY:

You must be a currently enrolled medical student in an MD or DO program in the U.S., OR a physician (MD or DO) currently completing residency training in the U.S.

STUDY DESCRIPTION:

If you agree to participate, you will be asked to complete an online survey in which you will answer demographic and background questions, questions about your social attitudes, and questions about patient care. Completing the measures should take approximately 10-15 minutes.

VOLUNTARY NATURE OF PARTICIPATION:

Your participation in this study is completely voluntary. If you do not wish to participate, or would like to end your participation in this study, there will be no penalty.

CONFIDENTIALITY:

You will not be asked to provide your name or any other identifying information for this survey, thus your responses will be anonymous. All data collected for this survey will be kept password-protected and in a de-identified format. Information from this study will be used in aggregate form only, and there will be no way to link your responses to your identity.

BENEFITS:

Participants who complete the study are eligible for a $5 Starbucks e-giftcard that can be used in-stores or online. At the end of the survey, you will be provided a separate link where you can

provide your email address. Your email address will only be seen by the researchers and a financial advisor associated with the research grant providing funding for this study. Your email address will not be linked to your survey responses. Please note that receiving the $5 e-giftcard is optional. If you do not want to provide your email address, you are still able to complete the survey.

RISKS:

We believe that this study poses minimal risk to participants. However, it is possible that there may be some discomfort with the loss of time and/or responding to questions regarding social attitudes. Your participation is completely voluntary, and you can withdraw at any time without penalty.

CONTACT INFORMATION:

If you have any questions about this project or if you have a research-related problem, you may contact the researchers or Western Michigan University's Institutional Review Board (IRB):

Joseph R. Morris, Ph.D.

Professor, Department of Counselor Education and Counseling Psychology

Western Michigan University

(269) 387-5112

joseph.morris@wmich.edu

Jennifer Hahm, M.A.

Doctoral Student in Counseling Psychology

Western Michigan University

jennifer.g.hahm@wmich.edu

Institutional Review Board (IRB)

(268) 387-8293

By clicking “I agree” below, you are indicating that you are at least 18 years old, are currently a medical student or physician completing residency training in the U.S., have read and understood the preceding information on this study and what is being asked of you in this study, and that your participation is voluntary. Please print a copy of this page for your records. Remember, you may discontinue participation in this study at any time by closing your web browser. Thank you in advance for your participation.

- I agree
- I do not agree

# APPENDIX E

## Demographic and Education Questionnaire

## Appendix E: Demographic and Education Questionnaire

**To Which Gender Identity Do You Most Identify?**

- ❑ Female
- ❑ Male
- ❑ Transgender Female
- ❑ Transgender Male
- ❑ Not Listed: _____
- ❑ Prefer not to answer

**What is Your Age?**

- ❑ 18-21 years old
- ❑ 22-25 years old
- ❑ 26-29 years old
- ❑ 30-33 years old
- ❑ 34-37 years old
- ❑ 38-41 years old
- ❑ 42-45 years old
- ❑ 46-49 years old
- ❑ 50-53 years old
- ❑ 54-57 years old
- ❑ 58-61 years old
- ❑ 62-65 years old
- ❑ 66+ years old
- ❑ Prefer not to answer

**Race/Ethnic Identification (Check all that apply):**

- ❑ Hispanic/Latino
- ❑ White/Caucasian/European American
- ❑ Black/African American
- ❑ American Indian/Alaska Native
- ❑ Asian/Asian American
- ❑ Native Hawaiian/Pacific Islander
- ❑ Arab American/Middle Eastern
- ❑ Other (specify) _____
- ❑ Prefer not to answer

**To What Sexual Orientation Do You Most Identify?**

- ❑ Heterosexual
- ❑ Gay/Lesbian
- ❑ Bisexual
- ❑ Not Listed: _____
- ❑ Prefer not to answer

**What Year in Medical School or Residency Training Are You In?**

- ❑ First year medical school
- ❑ Second year medical school
- ❑ Third year medical school
- ❑ Fourth year medical school
- ❑ Fifth year and more in medical school
- ❑ First year residency
- ❑ Second year residency
- ❑ Third year residency
- ❑ Fourth year residency
- ❑ Fifth year residency
- ❑ Sixth year residency
- ❑ Seventh year residency
- ❑ Eighth year or more in residency
- ❑ Prefer not to answer

**What degree have you completed or are you pursuing?**

- ❑ MD (Doctor of Medicine)
- ❑ DO (Doctor of Osteopathic Medicine)
- ❑ Other (please specify): _____
- ❑ Prefer not to answer

**Have you ever participated in cultural diversity training?**

- ❑ Yes
- ❑ No
- ❑ Prefer not to answer

**If you have had prior diversity training, which option below best describes it? (Check all that apply)**

- ❑ Separate medical school course for credit
- ❑ Content covered in medical school course
- ❑ Content covered in residency training

- ❑ Professional Conference or Seminar
- ❑ Other diversity training types (Specify) _____
- ❑ Prefer not to answer

**How many diversity training courses/seminars/workshops have you completed during your learning and/or training?**

- ❑ 0
- ❑ 1-2
- ❑ 3-4
- ❑ 5-6
- ❑ 7-8
- ❑ 9+
- ❑ Prefer not to answer