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The MONROE Method: A Methodology on Navigating Race, Oppression, and Equity in Medical Education through Physician Cultural Responsibility

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THE MONROE METHOD: A METHODOLOGY ON NAVIGATING RACE, OPPRESSION, AND EQUITY IN MEDICAL EDUCATION THROUGH PHYSICIAN CULTURAL RESPONSIBILITY

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ABSTRACT

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Many forms of oppression create barriers for health care, further health disparities, and impact the wellness of physicians. As health disparities, caused by the social determinants of health, complicate the practice of medicine, physicians' risk of burnout increases. The practice of Physician Cultural Responsibility provides a means to overcome health disparities and support physicians while embracing the intersectionality of the populations they serve. Incorporation of Physician Cultural Responsibility into physician professional identity is essential for the practice to be life-long. As there is no standardized curriculum to address teaching the practice of Physician Cultural Responsibility, this study aims to evaluate a proposed curriculum for the adoption of Physician Cultural Responsibility into students' physician professional identity, student experience, and knowledge transfer. Through the transformative research paradigm and transformative learning theory, a mixed-methods study of deidentified qualitative and quantitative data was performed using MaxQDA and SPSS ($\alpha = 0.05$) analytical software. Results suggest successful adoption of Physician Cultural Responsibility in physician identity development, successful knowledge transfer, as well as improvements in collaboration, belonging, and support in student experiences with within in first year medical students. This curriculum offers best practices for a methodology to address the inequities of practice in cultural

competency education requirements within medical education. This includes inclusive and culturally responsive pedagogy aimed at supporting the students' development of skills that improve the patient-physician connection with all patients, limit the impact of personal biases on medical practice, and dismantle the social categorization of medicine. The practice of Physician Cultural Responsibility and it's adoption in physician professional identity yields an opportunity to create the culture change necessary within medicine to improve equitable patient-centered care for all patients, overcome health disparities, and support physicians through the challenges of medical practice.

Keywords: physician cultural responsibility, health equity, race in medicine, medical education, social categorization of medicine, healthcare diversity, microaggressions, physician identity

Dedication

This dissertation is first and foremost dedicated to my Heavenly Father and Lord and Savior Jesus Christ for His continuing guidance, provision, and planning over my life. For without Him, nothing is possible. It is a blessing to be able to live my passion daily in accordance to God's will and as a vessel of service to the many lives that I hope to impact.

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To the Antioch University EdD family—thank you for creating a community of practice that continuously pushes the needle forward in creating a more equitable world. It has been an honor to travel with you!

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CHAPTER I: INTRODUCTION

Aside from attracting those expected to be the best and the brightest, medicine continues to uphold the biases of yesterday. The American doctor of the 19th and 20th centuries was white and male. With few concerns for what was occurring at home, he devoted his life to the care of others. His word was golden; he always knew best regardless of the circumstances. Care was afforded to those who could pay and was limited to those who were seen as worthy of the care itself. When this ideal in the field was threatened by the need to incorporate space for the care of women or people of color, or even the addition of physicians from these backgrounds, the institution responded. The status quo was swiftly defended with laws, rules, and regulations, like the influence of Flexner Report closing all but three historically Black medical schools in the country (Flexner, 1910).

The Problem

The doctors and patients of the 21st century look quite different, with 39.9% of America now identifying as minority (United States Census, 2021), 35.8% of physicians being female, women making up more than 50% of current medical students, and 43.8% of physicians and 45.4% of medical school graduates for one year being non-white (Association of American Medical Colleges [AAMC], 2019). Yet health disparities exist for all minority groups in America including race, gender, socioeconomic status, and sexual orientation. One may ask, why have medical school curricula failed to prepare physicians to care for those of diverse identities? While medical school curricular standards specifically ask for cultural competency and health equity components (Liaison Committee on Medical Education [LCME], 2021), the delivery varies widely and often centers on tolerance. Further, the cultural competency requirements fail to consider Eurocentric professionalism standards, the problematic nature of tolerance teaching,

and the lack of curricula teaching how oppression and power structures impact patient care and collegial interactions in the physician workforce. The discussions of cultural competence are centered around how people of color are different and their differences should be tolerated by physicians in a nonjudgmental manner. At the same time, there is no discussion about power dynamics and the fact that the overarching value system in medicine aligns with majority culture, disenfranchising the needs of over one-third of patients.

While physicians take an oath to treat all people, discussions about racism and oppression are surface at best and true antiracism and multiculturism are avoided. There is no discussion of medicine's roots in white supremacy, even when American medical practice was created by the use of black bodies without their consent. This continues to impact medical practice today through race-based medicine and practices build on faulty research. The medical community has taken a strong liking to discussing implicit bias and how this can negatively impact health outcomes but fails to dive deeper into why these biases exist, what to do with one's biases or the fear associated with recognizing them, or how these biases can impact the culture of medicine. Structural oppression, specifically structural racism, is disguised as the Social Determinants of Health and remain on the proverbial to do list in creating health equity while the future of medicine does not learn about these structural causes for why patients are unable to be healthy. Inequities are pervasive throughout the workforce as well as underrepresented minority medical students describe the additional tax of recruitment and retention alongside inequity in professionalism standards, microaggressions, and overt racism during medical training (Ackerman-Barger et al., 2020; Anderson et al., 2021; Dyrbye et al., 2006; Espaillat et al., 2019; Kumagai et al., 2017).

Study Purpose

In considering how to conquer so much, this author returns to the idea of identity, specifically physician identity. As the field of medicine has diversified, the physician identity must follow suit. The Hippocratic Oath has undergone many revisions, the most recent reading,

> I will remember that there is art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug . . . I will remember that I do not treat a fever chart, a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability. My responsibility includes these related problems, if I am to care adequately for the sick . . . I will remember that I remain a member of society, with special obligations to *all* [emphasis added] my fellow human beings, those of sound mind and body as well as the infirm. (Lasagna, 1964, p. 1)

If this is to be the oath of the physician, physician identity must amplify compassion, empathy, and advocacy for all patients including anti-oppressive identities regardless of personal or political convictions. There is currently a lack of standardized socially responsible curricula for medical schools which leads to the unintentional perpetuation of the social categorization of medicine and thus yields physicians that are ill equipped for fighting health disparities caused by the systemic racism that both ails patients and negatively impacts efforts to expand diversity in medicine.

The development of cultural humility is pivotal in medical practice, but alone is not enough. This researcher developed the concept of Physician Cultural Responsibility in response to the inadequacies noted within the medical field regarding disproportionate negative health outcomes for patients of various identities, the negative impact of bias within medical practice

and medical education, and the physician burnout crisis that is being perpetuated by these concerns. Physician Cultural Responsibility is a term embracing physician empathy and the social mission of medicine by encompassing self-awareness constructed through social emotional learning and narrative medicine, and social consciousness created through cultural humility, health equity, advocacy, anti-oppression, and allyship training. It is defined as,

> The physician's attitude of responsibility or ethical duty to patients, colleagues, and themselves to transcend personal biases and preconceived notions and uphold the dignity of all through acknowledging one's limitations, biases, knowledge gaps, and power differential, and committing to the ongoing work of improving one's cultural understanding, skillset, and practice to ensure empathetic, professional, and humanistic exchanges in all facets. (Johnson, 2023, p. 2)

With concern for the impact of structural racism on health disparities and the inequities of the social determinants of health, Physician Cultural Responsibility is the key to begin to cultivate a generation of physicians who can equitably care for all patients and reverse the ills of present health disparities. Fostering the development of Physician Cultural Responsibility as an integral part of physician identity is at the center of creating change in the field of medicine. Self-reflection, or the practice of "critical thinking and analysis of own experience and performance to inform growth in knowledge, skills and attitudes" (Ramani et al., 2017, p. 1066), is necessary to cope with the emotional process of deconstructing ideology that for some of them, has been the only thing they have ever known. They must build a new identity and understanding of their place as a physician in the fight against oppression's forces on health equity in America.

Research Questions

With the utilization of the transformative paradigm, one aims to explore if a designed curriculum will encourage the adoption of Physician Cultural Responsibility in physician identity development of first year medical students. Sub-questions include the assessment of successful knowledge transfer using culturally responsible curricula in medical education, the evaluation of student understanding of Physician Cultural Responsibility, the description of perceived development of Physician Cultural Responsibility in physician identity development, and the description of student experience while undergoing the curriculum including the assessment of perceived student collegiality and cohesiveness during the curriculum. Student experiences will be explored as they begin to define their physician identity and how Physician Cultural Responsibility influences this development. Adoption in this study is defined as changes observed in themes recorded from student responses as it relates to the expectations of physicians and self, insights to the self and personal beliefs and their relation to patient care and describing perception of physician role as it relates to Physician Cultural Responsibility regarding the pre-test, post-test, and student reflections. Successful knowledge transfer was defined as a statistically significant change in a student's knowledge question score between pre-test and post-test. Ideally students will emerge, able to utilize these skills to identify and overcome health inequities and target the oppression that both diverse patients and physicians face.

Role of the Researcher

The author's experiences within medical education, medical training, medical practice, and with healthcare workers from the perspective of receiving care have directly impacted interest in the topic. Throughout the authors personal educational journey, implicit biases and negative assumptions colored personal and professional interactions with peers, faculty, and

patients. Even with a solid academic and professionalism record, this author often faced additional inquiry regarding academic ability, discouragement to pursue larger undertakings, and reactions of surprise when able to manage the rigor that tasks required masked by microaggressions noting inspiration and eloquence. Once entering training in residency, scrutiny and frustration with this author's chosen lack of assimilation bred microagressions of assumptions of criminality alongside the idea that one didn't belong and a need to be fixed even while meeting educational expectations in order to have a place that this author had already earned.

During these experiences, this author noted the hypocrisy facing medicine—a yearning for increased diversity and cultural competency to care for the representative population while vilifying all aspects of cultural, religious, and ethnic diversity both within the field and within the patients being served, inherently demanding the assimilation of all in order to be receive the care so desperately needed. When recognized, the emotional responses of perpetrators have the impact to directly influence healthcare worker burnout, thus worsening the impact of all involved. This deters both patients and trainees from needed interactions, worsening the health disparities facing the field. Likewise, this author has experienced the impact of health care worker biases on personal and familial interactions with the health-care system, only remedied by this author's intimate understanding of how these interactions should have occurred and how to correct them.

Researcher Assumptions

Based upon previous experiences within the classroom, this author assumes that the implementation of such a curriculum will be met with trepidation and anticipation, yet with the emphasis on physician cultural responsibility, will cultivate a deeper understanding of the self

and others for those involved. Within the current political climate, this author expects rejection from students whose beliefs align with the dissolution of educational opportunities associated with diversity, equity, or inclusion, as well as careful consideration from the administration with such a sensitive topic. Further, based upon the literature, this author assumes that constrictive criticism of the course as well as the implementation will be freely given, offering an opportunity to continually improve this work going forward. This study is expected to be limited by the students' engagement within the classroom as well as the classroom setting and environment but will not focus on faculty training or student knowledge gaps upon matriculation.

This author's career has been dedicated to the alleviation of suffering and as such, creating space to teach the next generation of physicians how to cultivate inclusive classrooms and exam rooms is of the utmost importance. Both medicine and education require deeply personal interactions that must reflect those involved. When personal demographics, culture, lifestyle, and values and beliefs are ignored, both systems provide experiences that are surface level at best, lacking any opportunity for transformation of the individuals' health or behaviors. Within the field of medicine, the consequences of perpetuating societies' greatest ills are truly life or death. As education has the power to impact this, this author aims to utilize the opportunities of improved educational experiences to change the negative impacts of oppression on the suffering of patients and colleagues of all backgrounds.

CHAPTER II: LITERATURE REVIEW

Medical Education

Historically, medical education has undergone two large shifts, the first with the Flexner report which aimed to shift the concentration from solely apprenticeship to science-based education and the second which aimed to move medical education towards giving students "holistic" (Balcioglu et al., 2015) or scientific and society centered experiences from the beginning. With a continued focus on professionalism and science, both clinical and foundational, the most recent shifts in medical education like supporting active learning over lectures and the introduction of 3-year programs have remained tied to the needs of a less diverse population.

The foundation of medical education was built on the theory of positivism or valuing objective study independent of values or external context, thus leaving students as receivers of education rather than participants in acquiring it (Mann, 2011). As medical education is seen as the path for "the construction of a professional identity, the transformation of the entering individual from lay person to professional" (Mann, 2011, pp. 61–62), Mann (2011) argues that medical education should both prepare the individual for the opportunity for the challenges they will find in both medical practice and other areas they will lead.

Common Theories Used in Medical Education

The theories that undergird medical education have remained relatively unchanged over the past decade. Much of the curricula are rooted in constructivism, considering how students make meaning of material individually (Kamel-El Sayed & Loftus, 2018; Mann, 2011). Students are presented with threshold concepts, or ideas that if not understood cause the loss of the entire concept itself, and expected to make meaning of the larger picture. Thus, these concepts create a

foundation for the students' learning and are built upon throughout one's medical education. This can be seen in the concept of homeostasis or the normal state that the body consistently aims to maintain. Understanding this basic concept yields a foundation for further study of physiology where one will learn how various body systems work in tandem to maintain homeostasis.

Medical schools are also tasked with teaching pre-clinical students both the science of medicine and the values of empathy and ethics within their practice and communication. Narratives are often used to present cases that present whole pictures of a patient's medical history. Narrative medicine has been noted to increase understanding and even improve empathy for patients (Blackie et al., 2019; Kamel-El Sayed & Loftus, 2018). Further, dialogism, which considering the relationships between the learner and others, is focused on the student-professor and student-student relationships that drive classroom learning in instances like peer instruction and active learning classrooms (Mann, 2011) aimed at improving communication and collaboration.

Requirements and Competencies

Medical education in America is standardized through the Liaison Committee on Medical Education, or LCME, which houses the requirements for medical schools to maintain their accreditation. There are 12 standards that medical schools are held to including faculty quality, administrative and advising support, and admissions, alongside medical student wellness, curricular content, and competencies that students should fulfill to be prepared to enter graduate medical education (LCME, 2021).

The LCME (2021) notes the importance of cultural competency as it is currently associated with Standard 3: Academic and Learning Environments in Learning Environment/ Professionalism, and with Standard 7: Curricular Content through Societal Problems, Cultural

Competence and Health Care Disparities Medical Ethics, Communication Skills, and Interprofessional Collaborative Skills. While medical schools are assessed in these areas, there is currently no standardized curriculum or teaching method that captures this content.

Challenges Surrounding Cultural Competency in Medical Education

Hidden Curriculum and Social Categorization of Medicine. Students enter the clinical stage of medical education, having learned about being empathetic and caring for patients regardless of the challenges that those patients may face, yet they become physicians who perpetuate the biases commonly seen in the medical community. The hidden curriculum or, the "commonly held 'understandings' customs, rituals" (Lawrence et al., 2018, p. 6) and "lessons learned that are embedded in [the] culture" (Lehmann et al., 2018, p. 506) of medical education are taught alongside the traditional medical education curriculum. Whether intentional or otherwise, the hidden curriculum is widely accepted as directly opposed to the altruistic and humanist aims of medical education, including cynicism and biases that are displayed by physicians that students then model themselves. This often includes interactions with certain demographics of patients, the ways that medical decisions are made and presented, and responses to concerns about patient symptoms like pain control. The American College of Physicians describe the hidden curricula of medicine as a means of socialization that contributes to systemic biases that contribute to health disparities and have called for a culture change in encouraging alignment of behavior both within the classroom and clinical areas (Lehmann et al., 2018, p. 506) The social categorization of medicine, or specific biases passed down throughout the experience of medical education, are aligned with the hidden curriculum of medical education in that they create challenges for medical students to uphold the ethical standards they have been taught as well as care for all patients equitably (Blackie et al., 2019).

Structural Racism and Impacts on Health Equity for All. Structural racism is defined as the "totality of ways in which societies foster racial discrimination through mutually reinforcing systems of housing, education, employment, earnings, benefits, credit, media, health care, and criminal justice" (Bailey et al., 2017, p. 1453). Impacting all areas of society, structural racism creates the social determinants of health which create health disparities (Bailey et al., 2017; Blackie et al., 2019; Feagin & Bennefiled, 2014; Hardeman et al., 2016; Johnson, 2022; Krishnaswami et al., 2018). Because of the insidious nature of structural racism, these systemically ingrained inequities not only make achieving health equity nearly impossible, but they prevent individuals from seeing their personal contributions to the oppression of others.

"Residential segregation" (Bailey et al., 2017, p. 1456) has been noted as one of the most integral elements of structural racism as environment directly influences health, opportunity, and safety at all phases of life (Bailey et al., 2017; Hardeman et al., 2016; Johnson, 2017; Johnson, 2022). With the Redlining policies that limited the opportunity of home ownership by black citizens to more industrial and less desirable areas of cities, neighborhoods were created that would have poor zoning laws and environmental hazards, low quality educational opportunities, and decreased access to resources like medical care. The reinforcements of the Jim Crow era policies further prevented the economic growth of Black Americans and limited the diversity of the medical work force, further limiting the community's access to equitable health care (Bailey et al., 2017). However now, structural racism does not only impact people of color. Studies have shown that the impacts of structural racism on health disparities through the creation of the social determinants of health transcend racial background, impacting entire communities though the destruction of educational, social, and economic resources (Johnson, 2017).

The influences of the racist policies of the past on those living in these disenfranchised communities have been seen regardless of individual socioeconomic status, educational level, or other mitigating factors. Thus, the racism of yesterday presently contributes to people today. In this, much of the literature reviewed surrounding the root causes for the social determinants of health and health inequities will focus on racism in medicine as its consequences are far reaching and pervasive for all involved. This focus in this review does not negate the oppressive factors seen in classism, nationalism, homophobia, or otherwise, nor is this an attempt to state that these other forms of oppression are less important as the implications of these consequences impact other identities in including people from diverse ethnicities and nationalities, women, people identifying as lesbian, gay, bisexual, and transgender (LGBT), and those of lower socioeconomic status in the isolation from research and medical treatment.

Chronic Stress Hypothesis and Health Disparities. The chronic stress hypothesis has been described as "the cumulative effects of psychosocial and environmental hazards associated with population-level patterns of racial and social inequity" (Osypuk & Acevedo-Garcia, 2008, p. 1296). In essence, oppression like racism creates a continuous chronic stress state that those living in a society are unable to escape, causing increased health risks through the impacts of sustained stress hormones on organ systems (Howard et al., 1998; Hu & Lu, 2015; Osypuk & Acevedo-Garcia, 2008). Reports even describe changes to the functioning of the marker Apolipoprotein E4 in chronic stress, increasing risks of neurologic disease, obesity, and chronic disease and thus worsening health outcomes in underserved populations (Howard et al., 1998; Hu & Lu, 2015).

History of Racism in Medicine. Racism is a system of power that advantages one group and disadvantages another. As race is a societal construct, racism is not limited to any particular

place, but in American history was utilized as a driver for the budding American economy (Roberts & Rizzo, 2021). In the 16th century, racial inequities were societally acceptable as the people of color present on American soil during that time, African citizens who were enslaved, and Native Americans, were seen as less than human. Thus, race was initially synonymous with the idea of humanity.

Medical atrocities were widely utilized in Native American, African, Hispanic, and Asian populations for centuries in the name of furthering medical knowledge and for economic and political gain. The intentional spreading of disease, mutilation of patients rather than cure, and forced medical experimentation were common (De Leon, 2020; Feagin & Bennefield, 2014; Hodge, 2012; McVean, 2019; Spector-Bagdady & Lombardo, 2019; Washington, 2006; Zamalin, 2019). Likewise, the implications of the colonization of foreign lands by the Europeans have further contributed to a loss of historical record involving both medicine and otherwise as well as the creation of stereotypes, folklore, and othering biases that complicate health outcomes and health disparities today in the United States.

The Age of European Colonization. The exploitation of people and land through European colonization has been well documented. The plight of those indigenous people in all areas colonized have been sugar-coated while the reality includes intentional genocide by infectious pathogens, stolen lands, forced sterilization, and unethical medical experimentation (Hodge, 2012). Hodge (2012) explains that the British intentionally disseminated blankets known to be infected with smallpox during the French and Indian War of 1756. Following this, one half of the Huron, Iroquois, Cherokee, Catawba, and two-thirds of the Omaha were killed by smallpox. This genocide continued through the intentional introduction of pertussis, influenza, tuberculosis, and pneumonia. As land was taken, people were forced into government camps

lacking the minimal necessities including clean water, sanitation, and edible food. These camps would later be called reservations (Hodge, 2012).

Meanwhile, the colonization of the continent of Africa resulted in the mass theft of African people, enslavement, and forced migration to America as a free source of labor and property during the 17th century (Zamalin, 2019). A small minority were sold into slavery by royalty; however, this ideology of slavery can be likened to indentured servitude. In Africa, those enslaved would work for the wealthy, were well cared for like one of the family, and were offered their freedom or an opportunity to marry into the family after a given amount of time (Deetz, 2019). Enslavers were known to have revisited locations and captured people including royalty against their will (Deetz, 2019). As property in America, enslaved African people were not seen as human beings and thus were predisposed to a lack of health care as well as used for experimentation in many fields, alongside the field of medicine. According to Washington (2006), physicians in the south were known for trying treatments and procedures, including ether, the original smallpox inoculation, and the initial treatments for organ failure, on enslaved African people prior to making them available to White Americans. Medical education was intertwined with the custom of practicing on the bodies of enslaved individuals, both dead and alive, as provided by White masters in the south (Washington, 2006).

During the expanse of European colonization, the slave trade included multiple demographics of people. Native American people were captured and enslaved in similar conditions around the United States (Reséndez, 2021); however, little is known about their forced involvement in medical innovation at that time. The international slave trade also included people from India and other parts of Asia, however the first documented Asian and Hispanic/Latinx people in United States census records was during the 19th and early 20th

centuries, respectively (Gomez, 2022). As some subgroups of modern-day Hispanic/Latinx people share roots with the indigenous people present throughout the Americas, their presence was here prior to colonization and thus this history has been lost.

Nineteenth and Twentieth Centuries. Dr. James Marion Sims, now acclaimed as the father of gynecology, was an American physician who credited the plantation for teaching him everything he knew about medicine. Washington (2006) notes that his first experiments, done on babies born to enslaved women, involved tetanus. Tetanus is caused by bacterial infection and in retrospect was likely due to the nature of the dwellings created for enslaved people and the medical practices of the day, including no hand washing. However, Dr. Sims believed tetanus to be caused by laziness thus, attempted to cure it by opening the infant's skulls to move their bones around (Washington, 2006). This proved unsuccessful.

Remaining encouraged to learn by the medical community, as Washington (2006) described, Dr. Sims began experiments on Anarcha in 1845. She was a 17-year-old woman who was enslaved and developed a vesicovaginal fistula during a botched forceps delivery. As the condition was common in both races, Sims began his experiments to help White women, noting the need for chastity in their treatment. Yet Dr. Sims operated on his subjects, enslaved women, completely naked with other male physicians present. He created the first speculum for use to open their genitalia noting, "I saw everything no man had seen before" (Washington, 2006, p. 64).

Aside from the development of instruments, Dr. Sims practiced vaginal surgeries on each woman repeatedly as the wounds would become infected and open again. This was performed without anesthesia. Once anesthesia was available, Dr. Sims refused to use this with enslaved women, publicly stating the procedures were not painful. He described a different account in

both his medical notes and by his practice of using anesthesia with white patients (Washington, 2006). By the time the surgery was perfected four years later, Sims had experimented on countless enslaved women, including over 30 reported anesthesia-less surgeries on Anarcha alone (Feagin & Bennefield, 2014; Washington, 2006). Likewise, many other medical discoveries were found through practice on the bodies of persons who were unable to dissent.

The loss of agency of personhood was not only encountered within the American slave trade. Physicians were assigned to reservations and utilized the bodies of Native American citizens as they pleased. According to the National Library of Medicine (1927), doctors utilized a novel procedure called a tarsectomy to remove both the upper and lower eyelids in patients with trachoma beginning in the late 19th century. This had never been tested, was not used in any other population, and ultimately led to the disfigurement of countless Native American people as it was advertised to physicians as a primary therapy in 1924. In 1927 the therapy was reported as dangerous but continued into the 1930s (Hodge, 2012; National Library of Medicine, 1927).

Damage caused by preconceived notions based on race impacted others. Asian Americans also faced their share of persecution at the hands of the American medical institution. In the late 1800s, Chinese immigration to America was increasing, driven by the gold rush. However, propaganda was released about “Chinese Uncleanliness” (Choy, 2022; De Leon, 2020). These stereotypes impacted Asian Americans and immigrants. Movements to bar Indian immigrants from the United States were spurred by hookworm diagnoses stateside (Choy, 2022). In the Philippines, American physicians also claimed the Filipino people were inherently dirty and harboring disease, encouraging the continuation of American colonization as they believed people were unable to treat themselves for the diseases endemic to the area (De Leon, 2020). The diseases noted were brought to the region by the initial colonizers, the Spanish (Choy, 2022).

This occupation diminished Filipino medical practices as American medical professionals led a forced assimilation of the medical practices to American training (Choy, 2022).

The American medical institution was also implicated in eugenics efforts. Native American Women, African American women, and Hispanic/Latinx American women faced eugenic warfare through unethical and potentially life-threatening reproductive studies that rendered them infertile alongside forced and unconsented sterilization. Early contraceptive methods were trialed in black communities, including high estrogen birth control pills that increased risks for strokes and hypertension and early IUDs made with cloth strings that caused intrauterine infections (Feagin & Bennefield, 2014).

Fanni Lou Hammer, among other women, would be hospitalized for a routine surgical operation only to learn they had been surgically sterilized during the procedure without their consent (Feagin & Bennefield, 2014; Washington, 2006). Even governmental agencies recorded physicians' perspectives as "help[ing] society through population control . . . reducing the financial burden on government social programs" (Hodge, 2012, p. 433). Stories like that of two 15-year-olds who woke up from planned tonsillectomies with their tonsils in place and ovaries missing were common (Hodge, 2012). A large number of Puerto Rican immigrants underwent surgical sterilizations and elective hysterectomies in New York without full understanding or consent, noting a belief this was necessary for other treatments (Centers for Disease Control and Prevention [CDC], 2022; Washington, 2006). This practice continued in other parts of the nation into the 1970s, according to Hodge, as 3,406 Native American women and girls were sterilized, many without consent. The women who were consented were under the impression that the procedure was necessary to allow them to continue to receive benefits or even to keep custody of their children (Hodge, 2012).

The ills of unethical studies also impacted men of color. The Tuskegee syphilis experiment, also known as the *Study of Syphilis in the Untreated Male* (Feagin & Bennefield, 2014; McVean, 2019), is one of the most well-known cases of racism in medicine. From 1932 to 1972, hundreds of Black men were studied while having syphilis and the cure, penicillin, was intentionally withheld (CDC, 2021). As syphilis is contagious and is known to wreak havoc on the body over an extended period of time, these men were unable to protect their partners or themselves while they believed they were being treated for "bad blood" (CDC, 2021; McVean, 2019). According to McVean (2019), researchers offered the men rides, free food, and medical care, and even paid for funeral expenses to ensure the study continued. Area physicians and the health department were given a list of men involved to prevent these patients from getting treatment elsewhere. Even men who were drafted to the army were released rather than treated. At the time a treatment was available, and even 30 years into the study, the researchers refused to treat these men leading to the deaths of many of those experimented on (McVean, 2019).

Studies were not only performed on American soil. Spector-Bagdady and Lombardo (2019) describe how American physicians with the U.S. Public Health Service performed experiments in Guatemala in hopes of improving sexually transmitted disease (STD) care for the military in 1946. The physicians intentionally exposed 1,300 people to STDs without their consent including sex workers, prisoners, soldiers, and psychiatric patients, stating they were testing an antiseptic for STD prevention. Studies with soldiers included intentional exposure through partners with known STDs. Infected cervical swabs and contaminated instruments were used to create infections. Only about half of those exposed ever received any treatment. Rather than recording the effectiveness of the antiseptic, the physicians reported observations of the progression of the STDs (Spector-Bagdady & Lombardo, 2019).

In Alaska, Hodge (2012) describes how physicians in the 1950s carrying out thyroid experiments in cold weather, utilized large doses of radioactive iodine in 120 Alaska Native men, women, and children, including pregnant and lactating women. This study did not keep records or ask for proper consent, and participants were under the impression that their participation would be compensated by allowing medical treatment in the areas that they lived (Hodge, 2012). Even those seeking medical treatment were impacted by the unethical nature of medicine for people of color. Henrietta Lacks presented to physicians for diagnosis and treatment of cervical cancer. Not only did she receive inappropriate treatment that led to her death, but her cells were also sampled and grown as the HELA cell line that has been used in a multitude of studies all over the world without her or her family ever being notified (Feagin & Bennefield, 2014).

Well after the civil rights movement and laws were passed to protect the rights of people, medicine still was not safe for all. In the 1990s blood samples were collected from an American Indian tribe in Arizona for a diabetes study but were used for various studies in multiple places. Not only were the samples not returned as agreed in the informed consent, they have not been able to be tracked (Hodge, 2012). In many tribal beliefs, the entire body, inclusive of all biological parts, should be together to allow spirits to travel to the afterlife. This breach of contract creates havoc for both those whose graves and bodies were disturbed and those still living who have not had their blood samples returned (Hodge, 2012). This disregard for psychological safety has also impacted Asian Americans. Asian Americans were blamed and unjustly targeted for both SARS in 2001 and most recently, COVID-19 starting in 2020, according to Lu (2021). This has fueled an uprising of anti-Asian violence. Some physicians have participated in the perpetuation of rumors, furthering anti-Asian hate and violence. This

was noted to deter many Asian patients from seeking care for possible COVID symptoms (Lu, 2021).

Present Day Implications of History. The historical examples presented here are not a complete anthology, but only highlights in a dark past that reveals a strained relationship between medicine and people of color, littered with pain and broken trust. Unfortunately, past behaviors continue to impact present day interactions. A continued lack of respect for Native American culture and traditions has been reported within medical research. This includes the contradictions between DNA studies and tribal creation beliefs, gender studies, and studies surrounding mental health and substance abuse that do not consider cultural narratives (Hodge, 2012). As such, Native American populations continue to exercise caution when invited to participate in medical research or interact with physicians that are not known to them due to the negative impacts they have survived at the hand of American medicine. Tribes now have their own government and the ability to create their own law which include tribe specific Institutional Review Boards and tribal maintained control of all grant and federal programs to assist in protecting their own people (Hodge, 2012).

As the government may have apologized and financially provided medical care for the men of Tuskegee who were still living in 1997, the impacts of this study remain today both through the lives lost and the widespread mistrust of physicians in the surrounding community. Additional unethical experiments have occurred including the testing of radiation on African American patients without their knowledge and the theft of organs from deceased African Americans during burial preparation (Washington, 2008), reminding many African American patients of the risks of interacting with the medical field. Alongside negative interactions with medical professionals currently, African American patients are still less likely to seek care from

physicians in certain parts of the country, participate in medical research, and remain underrepresented in clinical trials (Harris et al., 1996; Whyte, 2022). These sentiments likely impacted vaccine uptake in the COVID-19 pandemic and the death rate in this population.

Asian Americans have since been tagged the Model Minority. This leads to fewer contributions to researching the health disparities plaguing this population (Liu & Chen, 2022; Wang, 2022). With the vast diversity within those who are identified as Asian, the lack of research and disaggregation of Asian cultures has resulted in the generalization of the culture and health needs of the Asian population. There are a myriad of cultures incorporated with the largest subgroups being those of Chinese, Filipino, Indian, Vietnamese, and Korean descent. Pacific Islanders and Native Hawaiians may also be included (Lancet, 2021). Without the disaggregation of the needs of Asian ethnicities, health inequities remain under reported due to the vast diversity of the Asian American population that is unaccounted for (Lancet, 2021; Liu & Chen, 2022; Santos et al., 2021; Wang, 2022).

The erasure of intersectionality culture has also left long lasting impact for the Hispanic/Latinx populations. Examples like the forced assimilation of the diets of Mexican American families from traditional Mexican diet to the American diet in the past highlight negative impacts for entire generations of people that potentially created the disparities seen in obesity and diabetes seen today (CDC, 2022). During the COVID-19 pandemic, warnings given by physicians and public health practitioners focused on the elderly as those impacted by comorbidities that impact risk, which is true in White demographics. Within Hispanic/Latinx populations, these comorbidities are more common in younger demographics thus, alongside other factors like the larger number of essential workers in this population, the years of potential life loss in this community was seven times higher than White populations (Gomez, 2022). When

considering overall health disparities, studies have shown that the intersectionality with colorism within this population also yield complexion as a risk factor for worsened health outcomes (Cuevas et al., 2016). This may be associated with biases based on perceived racial background based on provider perceptions, as implicit biases in physicians have been linked to health outcomes (Hall et al., 2015).

Impacts of Historical Oppression on Medicine Today. Historical failings have created the present-day racial disparities in health outcomes including African Americans receiving less options for care in regard to innovative and lifesaving interventions while similar outcomes to others when given access to these options (Statts et al., 2015), Hispanic Americans continuing to report lower quality care and disregard from medical professionals (Funk & Lopez, 2022), and the impact of a lack of cultural understanding that continues to inflict trauma on the Native American (Hodge, 2012) and Asian populations alike (Statts et al., 2015). However, the social categorization of medicine, or the biases that are passed through the medical field, have allowed for the biases noted from the 19th century to continue to impact care today. For example, pain control remains an area of disparity for patients of diverse identities.

In 1830, Dr. Francois Marie Prevost practiced gynecological and urologic surgeries on enslaved people without anesthesia, much like Dr. Sims. Likewise, Dr. Charles White noted that people who were enslaved "bear surgical operations much better than white people and what would be the cause of insupportable pain for white men, a negro would almost disregard" (Washington, 2008, p. 58). A study by the American Association of Medical Colleges revealed that 40% of second-year students believe, "Black people's nerve endings are less sensitive than white people's," "Black people's skin is thicker than white people's," and "Black people's blood coagulates more quickly than white people's" (Sabin, 2020, p. 1). These long-held inaccurate

perceptions have consequences now as Black patients were 22% less likely to receive pain control (Feagin & Bennefield, 2014; Sabin, 2020). Another study by Ezenwa and Fleming (2012) showed that Black patients seeing their primary care physician were "significantly more likely to report chronic pain-related disability than White patients" (p. 18), had "significantly worse pain management" (p. 19), and had "significantly lower quality of life scores" (p. 19). Thus, patients with poor pain management are more likely to have greater challenges with the other social determinants of health, increasing their risk of poorer health outcomes.

Additional biases surrounding race also impact care plans for treatment options for chronic disease. Dr. W. H. Robert amputated the leg of a 15-year-old enslaved girl after she suffered a minor injury noting, "'amputation should be very differently estimated in the different classes of society' . . . 'horrid deformity' that should be the last resort for a rich man, amputating the limb of a slave was 'a matter of comparatively little importance'" (Washington, 2006, p. 109). While in present times, it is less likely that such direct biases would be used to excuse the disparities in amputation rates, the disparity remains. In the 21st century, it is known that delayed care may lead to amputation, especially in cases of diabetes and chronic kidney disease, however studies have shown that amputations are statically significantly more likely in patients that are nonwhite, lower socioeconomic status, or insured by Medicare or Medicaid (Eslami et al., 2007; Feagin & Bennefield, 2014). Is it possible that this delay in care is secondary to health inequities that prevent people of color and people of lower socioeconomic status from reaching specialist until no other options are left? Do we know what options are given? The treatment plans for patients of color continue to be littered with inequities by race. Studies report differences in options that are offered patients as black patients are 33% less likely to receive cardiac catheterization and 54% less likely to have coronary bypass surgery after heart attacks because

they were not offered (Capers & Sharalya, 2014; Feagin & Bennefield, 2014). Likewise, Asian Americans are more likely to die from cancer than any other race because they are least likely to be referred for cancer screenings than other patients (Statts et al., 2015). Further, some treatments have been withheld due to poorly constructed studies and the pseudoscience of race-based medicine.

Race-based medicine is a theoretical presumption that people of the same race have similar genetic backgrounds (American Academy of Family Physicians, 2020). In this, treatment guidelines have been created utilizing race-based medicine dictating first line medications and even defining normal lab values. It is important to note that it has been well known for decades that the genetic similarity of two people in different races is higher than two people in the same race, yet these policies have only begun to change in the last few years with extensive pressures and questioning from the medical and general population. Chronic Kidney Disease diagnosis is just one example of the impact of this type of bias. The National Kidney Foundation (2021) explains that the glomerular filtration rate, or GFR, is used to ascertain kidney function where a higher number is associated with increased kidney function. A clinical trial was performed that examined blood creatinine levels and led to the conclusion that Black participants had higher amounts of creatinine because of "differences in muscle mass, diet, and the way the kidneys eliminate creatinine" (National Kidney Foundation, 2021). Thus, the calculation for GFR was split to include race. African American patients were assigned a higher baseline GFR than White patients with a lower value as the cutoff for normal. This led to an increase of delays in referral or treatment for chronic kidney disease in African American patients, thus worsening outcomes. A single calculation that follows the calculation that White patients have always received is preferred for use with patients as of 2021 (National Kidney Foundation, 2021).

Physician Workforce Diversity as an Aim to Achieve Health Equity. It is generally accepted that the healthcare workforce should mirror the racial background of the American population (Betancourt et al., 2003; Dyrbye et al., 2006; Pittman et al., 2021). One preventable barrier to health equity is the lack of diversity in the health care workforce. Aside from the increased trust, relatability, and satisfaction that patients may find when seeing a physician that matches their own identity, it has been noted that policies and methods of healthcare delivery often isolate disenfranchised populations when diverse identities were not included in the original design (Betancourt et al., 2003; Dyrbye et al., 2006; Pittman et al., 2021). Studies have also shown that physicians of diverse identities are more likely to serve underserved patients and thus, there has been a large push to diversify the matriculants of medical education to mitigate health disparities (Betancourt et al., 2003; Pittman et al., 2021). While the social mission of medical education is to improve health equity through physician training, achieving this mission is not consistent. Authors note that the struggles to diversify the physician workforce through medical education have been staggering from both a funding and recruitment and retention lens (Dyrbye et al., 2006; Pittman et al., 2021).

As only 2%–4% of medical educators are people of color (Ackerman-Barger et al., 2020; Betancourt et al., 2003; Espaillat et al., 2019), students struggle to find support and mentors during training, increasing the minority tax that medical students of color already must overcome to become physicians (Ackerman-Barger et al., 2020; Dyrbye et al., 2006). Yet with the push to diversify medicine, the reality remains that students of color can be disenfranchised in the classroom by peers and teachers. Studies have described that medical students of color endure similar experiences as those that patients have reported, including biases, microaggressions and inequitable expectations that continue to be barriers for students of color in both completing

training as well as considering becoming academic physicians or physician leaders (Blaisdell, 2005; Espaillat et al., 2019). This may be the case with students of other minority identities as well.

Forty percent of medical school graduates disclosed experiencing discriminatory events based on identity at least once during medical school (York et al., 2021). Students have described the microaggressions they have experienced in many ways including jokes or statements made by classmates or faculty, reactions to not presenting as the expected stereotype others may have of them, comments about outer appearance or speaking ability, and even a complete disregard of one's perspective and experience (Johnson et al., 2017). These microaggressions are noted to distract students from coursework and are associated with increased student disclosure of mental health impacts including anxiety and depression (Ackerman-Barger et al., 2020; Anderson et al., 2021; Dyrbye et al., 2006; Kumagai et al., 2017).

In a national study by Anderson and colleagues (2021), 61% of medical students reported microaggressions at least once a week. This population was less likely to recruit other students to their school or have an interest in finishing medical training at their present institution and were more likely to pursue transferring or withdrawing completely. In another study, students noted that they felt devalued, isolated, and that comments from professors suggest that they expect students of diverse identities to be less intelligent than others (Ackerman-Barger et al., 2020). Intersectionality, or the layered impact that oppression has on individuals (Crenshaw, 1989), has been shown to increase exposure to microaggressions as additional diverse identities including gender, age, and complexion as each bring their own set of microaggressions (Anderson et al., 2021).

Challenges to Changing Medical Education. The challenges presented to medicine demand changes in medical education. Biases both on the surface and deep within counteract the progress made to achieve health equity. One way to overcome these barriers is by teaching targeted cultural humility curricula (Beavis et al., 2015; Foronda et al., 2016; Hunter & Thomson, 2019; Johnson et al., 2022). Cultural humility curricula ask students to potentially abandon what they have been socialized to believe at home and to adopt new ideologies about people who are different from them (Betancourt et al., 2003; Tervalon & Murray-Garcia, 1998). However, alone, current cultural humility curricula are not enough to facilitate the change medical education needs.

The current model of medical education often resembles a standard curriculum, discounting the identity or experiences that students already bring, proposing that institutions follow a suggested checklist that may not serve the needs of the students or community. For example, just as there are students of color in classrooms who face biases daily, there are students who have never seen people of color before and rely on their biases as their sole experience with people of color. As expected, this causes much distress to both populations being asked to traverse uncomfortable sessions together.

Further, changing mindsets and routines are inherently difficult and depend on both the person and the support given (Gallagher & Thordarson, 2018). Thus, naturally, people work against change to restore comfortability. For example, students can classify this learning as unnecessary because it is emotionally difficult and not directly going to impact their board scores. Institutions can rely on standardized lists to create curricula and place the brunt of cultural humility teaching on educators of color because it is uncomfortable to discuss the necessity for further investment in creating inclusive spaces with support for providing students

with a transformational experience (Brookfield & Hess, 2021). In recognizing that change is associated with costs both emotionally and those associated with the energy expenditure to overcome the change itself, successful change must include addressing the emotions involved (Duck, 2001). As change will continue throughout one's medical career through growth and progression, these skills must become a part of one's identity.

Physician Cultural Responsibility

> Defined by this author as,
>
> The physician's attitude of responsibility or ethical duty to patients, colleagues, and themselves to transcend personal biases and preconceived notions and uphold the dignity of all through acknowledging one's limitations, biases, knowledge gaps, and power differential, and committing to the ongoing work of improving one's cultural understanding, skillset, and practice to ensure empathetic, professional, and humanistic exchanges in all facets. (Johnson, 2023, p. 2)

Physician Cultural Responsibility integrates five central values: cultural humility, anti-oppression, advocacy, intercultural communication, and self-awareness and self-reflection practices. In essence, Physician Cultural Responsibility aims to cultivate a sense of duty to emphasizing the needs of the intersectional individual over personal beliefs or biases to improve the patient- physician connection and health outcomes alongside collegial interactions and physician wellness. Not to be confused with the anthropologic term cultural responsibility meaning, "a respectful attitude towards different cultural expressions within a society characterized by globalization and the spread of knowledge-based economy" (Salvan, 2013, p. iii), Physician Cultural Responsibility aligns with the four ethical principles of medicine: Beneficence, or doing good in providing excellent care; Non-maleficence, or to do no harm in

relying on personal biases or assumptions to make medical decisions or in interactions; Autonomy, or patient's freedom of choice even when this may not align with the physician's personal beliefs and values; and Justice, or fairness and ensuring equity in interactions and patient care through advocacy and speaking out against inequities (Gallion, 1994).

The five central values of Physician Cultural Responsibility, cultural humility, anti-oppression, intercultural communication, advocacy, and self-awareness and self-reflection, have alone been described in association to fighting health disparities (Corneau & Stergiopoulos, 2012; Dobie, 2007; Fried et al., 2019; Foronda et al., 2016; Leon, 2020). However, these values have been undervalued in these efforts and have not been collectively connected to physician duty. Cultural humility is defined by the National Institutes of Health as "a lifelong process of self-reflection and self-critique [that] does not require mastery of lists of "different" or peculiar beliefs and behaviors supposedly pertaining to different cultures, rather it encourages [one] to develop a respectful attitude toward diverse points of view "(NIH, 2007). Cultural humility is described as having openness to cultural differences, awareness of one's limitations and beliefs, humility in being able to be taught about patients by patients themselves, communication skills, and the ability to reflect (Foronda et al., 2016; Tervalon & Murray-Garcia, 1998). This also aligns with the value of intercultural communication which emphasizes the importance of the necessary skills for communicating about difficult topics and subjects whether with colleagues, in teams, or with patients from different backgrounds.

The value of anti-oppression including antiracism not only includes having an understanding of how oppression in our society changes one's reality, opportunities, and health outcomes, but empowers physicians to search beyond the limited understanding of the patient in front of them and to question the systemic and societal factors that not only cause health

disparities but prevent physicians from truly aligning with the ethical pillar of justice for every patient they see. Further, the value of advocacy asks physicians to grow in understanding the leadership position that being a physician creates both in society and in the patient care team, as well as the duty and the skills necessary to properly advocate for the people and communities they serve. Finally, the value of self- awareness and self-reflection prioritizes physician wellness and development in elevating the ability to cope with the feelings that occur with the unique challenges, expansion of ideas, recognition of biases, difficult experiences, and incredible demands that come with being a physician.

Without these five central values, one may not be able to personify any of the four ethical pillars they are held to nor provide equitable care to the patients they serve. Without these values, medicine is but a practice of science, disregarding the intricacies and challenges that humanity presents when practicing the art of medicine well. Thus, Physician Cultural Responsibility is central to the essence of physician-hood and one's ability to care for the person as well as the disease.

Physician Professional Identity and Physician Cultural Responsibility

Physician Professional Identity

Identity is "a negotiated process between individuals and those in the community they aim to join" (Wyatt et al., 2020, p. 1587). Professional identity is described in multiple ways as the interconnection between personal identity and professional values that allow for role congruity in one's work (Cruess et al., 2014; Holden et al., 2015; Kalet et al., 2016; Mann, 2011; Tagawa, 2019; Wald, 2015; Wald et al., 2019; Ward & Randall, 2020). Explained as an "active, developmental process" (Wald, 2015, p. 701), the formation of professional identity is experienced through the "development of professional values, moral principles, actions,

aspirations, and ongoing self-reflection on the identity of the individual" (Wald, 2015, p. 701). Reflection has been noted as a key in the development of professional identity and may even improve incidents in professionalism (Wald, 2015; Wald et al., 2019) noting, "without reflection . . . personal identity transformation cannot occur" (Wald, 2015, p. 702).

In the medical profession, professional identity is of the utmost importance. Aside from the personal value of professional identity, physicians face unique profession-associated challenges that demand a solid professional identity. Birthed from previous work by Piaget and others, Kegan is credited with creating the five stages of professional identity (Holden et al., 2012; Holden et al., 2015; Tagawa, 2019; Wald, 2015; Ward & Randall, 2020). Medical students are said to experience stages 2–4; being the ability to see alternate perspectives (stage 2), understand multiple viewpoints (stage 3), and the ability to utilize self-constructed value systems to evaluate situations (stage 4; Holden et al., 2012; Tagawa, 2019; Ward & Randall, 2020). The challenges and the need to be able to deal with them does not stop as one progresses through the profession (Wald et al., 2019).

For physicians, physician professional identity is described as "ones 'interpretation of what being a good doctor means and the manner in which he or she should behave'" (Sarraf-Yazdi et al., 2021, p. 3512). Wald (2015) notes that concentrating on the creation of this identity shifts emphasis from "'doing the work of a physician' towards a broader focus that includes, 'being a physician'" (p. 701). Likewise, Cruess and colleagues (2014) trace this idea back to Merton in 1957, describing how professional identity allows one to "think, act, and feel like a physician" (p. 1447). The road to professional accomplishment is curved with a multitude of transitions in hierarchical rank and littered with sacrifices and the potential to lose personal identity, the biases and subjective feedback of others, and a yearning for high achievement

(Holden et al., 2012; Ward & Randall, 2020). Sarraf-Yazdi and colleagues (2021) highlight that the intertwining facets of one's personal identity—class, upbringing, spirituality, values, beliefs, roles in family and society, and otherwise—create a fluidity where identity changes based upon the needs and priorities at that time. As professional identity integrates the personhood of self in the *innate*, one's personal values and beliefs in the *individual,* relationships in the *relational*, and the roles placed on one by societal constructs in the *societal* rings, (Sarraf-Yazdi et al., 2021) with the projected expectations, roles, and behaviors of the physician, misalignment can occur, complicating the process (Holden et al., 2012; Sarraf-Yazdi et al., 2021; Tagawa, 2019; Wald, 2015; Ward & Randall, 2020; Wyatt et al., 2020).

Unlike professionalism, professional identity centers on the self and the development of one's own identity in the field incorporating the values present rather than solely the expected actions of the professional (Cruess et al., 2016; Mann, 2011). In the framework created by Cruess, based off the work of Kegan, Cruess and colleagues (2016) note that professional identity is developed in Kegan's final stage, arguing, "a physician should possess a 'fully integrated and moral self" (p. 1447), including the tenants of professionalism. Thus, challenging all physicians to develop as the 1% of society to reach the final stage, as one must create a professional identity and personal identity that align to maintain these ideals throughout one's profession and lifetime (Holden et al., 2012; Kalet et al., 2016; Sarraf-Yazdi et al., 2021). One may ask if a sense of professional identity can be developed prior to that stage of development, especially as many describe physician professional identity without reaching Kegan's final stage.

Wald (2015), among others, theorize that relationships and socialization play an integral part in the formation of professional identity through modeling from mentors, colleagues, curricula—hidden or otherwise, and even patient interactions (Holden et al., 2012; Sarraf-Yazdi

et al., 2021; Wald, 2015). Cruess and colleagues (2014) describe socialization as a crucial factor in professional identity formation as it creates the selective integration and exclusion of present identity in both a positive and negative sense. That is, the impact of both positive and negative experiences with mentors, colleagues, curriculum, as well as personal relationships can both build professional identity and create conflicts that hinder its progress (Holden et al., 2012). Negative implications from colleagues have been noted to especially impact students of color causing additional trauma and increasing imposter syndrome (Holden et al., 2012; Wyatt, 2020), suggesting an even greater need for change in medical curricula. Just as professional identity can create more resilience through mindfulness, burnout can hinder professional identity formation (Wald, 2015; Ward & Randall, 2020). Thus, it can be summarized that one's personal identity is impacted by the socialization of medicine, which yields physician professional identity over time (Holden et al., 2012).

Physician Cultural Responsibility and Physician Professional Identity

Physician Cultural Responsibility can be described as a pillar of professional identity, embodying the ethical principles that physicians must have to provide equitable care to all patients. Holden and colleagues (2015) describe six specific domains housed within Physician Identity including *Attitudes, Personal Characteristics, Duties and Responsibilities, Habits, Relationships,* and *Perception and Recognition*. These domains incorporate subjects aligned with the tenants of Physician Cultural Responsibility like cultural sensitivity, self-care, effective communication, and advocacy for patients. One may argue that one cannot have physician professional identity without Physician Cultural Responsibility, yet the current medical education practices do not emphasize these areas. Often, the emphasis on characteristics like leadership, critical thinking, and discernment outshine the person-centered needs that embolden

the intended practice of medicine. Without the integration of Physician Cultural Responsibility, the commonly accepted identity of the physician remains incomplete and likewise the care provided, lacking the integral pieces of humanism.

Developing Physician Professional Identity

Within the last decade, there has been a greater impetus to assess physician professional identity development in medical students. Ward and Randall (2020) describe four stages to professional identity development for physicians including the *Building Stage* where students experience being physicians, the *Becoming Stage* where students begin to "think and act like physicians," (Ward & Randall, 2020, p. 3517), the *Bridging Stage* where students begin to develop a physician identity, and the *Being Stage* where students begin to identify themselves as physicians. Students begin to understand that their knowledge will not make them a physician, but one may need to utilize tools in their clinical decision making to overcome ambiguity. They also experience teamwork through connection with colleagues and realize the need for communication skills, dealing with making mistakes, and encountering difficult situations that push students to work through these stages (Ward & Randall, 2020). Similarly, Vivekananda- Schmidt et al. (2015) describes a student's journey starting with the display of their knowledge and finding one's fit, then making alterations through responses to interactions until students feel as though they meet expectations.

Studies suggest reflection, narratives, mentorship, and including learners' emotional experience is imperative in professional identity formation (Sarraf-Yazdi et al., 2021; Wald, 2015; Wald et al., 2019). Many sources focus on the utility of reflection as the effects on evaluating beliefs and values and working through the difficulties of developing identity under stressful and complicated situations are stark (Cruess et al., 2016; Sarraf-Yazdi et al., 2021;

Wald, 2015; Ward & Randall, 2020) The opportunity to critique ideas and analyze ones understanding through reflection can allow students to better understand their identity as they are creating it rather than being left with the conflicts that can complicate personal wellness and increase burnout (Sarraf-Yazdi et al., 2021; Wald, 2015).

Wald (2015) encourages incorporating the arts into the curriculum which can increase empathy and widen the lens that learners use to see the word and form their opinions. Positive impacts on professional identity formation in student physicians were reported when specific discussion of identity formation, discussion, and reflection were employed (Cruess et al., 2014; Cruess et al., 2016). Measuring the formation of physician professional identity has been done but is complex. Holden's (2015) six domains may assist in this.

Teaching Physician Cultural Responsibility within Physician Professional Identity Development

Theoretical Frameworks

Critical Theory. The realities of power dynamics are ever present in medicine, where the majority of identities of those that create the standards and hold power in the field are vastly different from those that seek the most care. In understanding that ever presence of inequity, critical theory emphasizes the need for lifting the thoughts and needs of the marginalized to the consciousness of the mainstream (Brookfield, 2010), elevating the voices in the room who have lived these experiences, lessening the othering of medical students, and physicians from diverse backgrounds. Pairing transformative learning and critical theory can yield successful results as transformative learning is a way for learners to implement what they have learned using critical theory (Cranton, 2016). In the transformational learning paradigm, reflection, identifying emotions, and challenging current beliefs are key to achieving educational goals. Not only has

critical self-reflection been noted to assist in professional identity development, but it can also serve as a tool to process the uncomfortable emotions associated with learning new information, exploring personal growth and imperfections, experiencing the magnitude of societal ills that impact others, and having vulnerable conversations where there may not be a correct answer.

Considerations for Curriculum Development in Physician Cultural Responsibility

The ADDIE, or Analysis, Design, Development, Implementation, and Evaluation, method by Mayfield (2011) supplies a framework to successfully incorporate and integrate the multiple facets of Physician Cultural Responsibility while allowing for curricular changes to be recognized and made prior to release to students. The Analysis phase will allow for the development of learning goals. This is followed by the Design phase and the Development phase which allow for the exploration of objectives, methods, and materials, as well as the creation of the curriculum and its content respectively. The Implementation phase is where learners encounter the content. The final phase, the Evaluation phase, allows for the assessment of the initial goals and objectives as well as the methods utilized and can impact future implementation (Mayfield, 2011). There are multiple methods needed to assist in the overarching goal of the adoption of Physician Cultural Responsibility. The analysis of those methods as well as the consideration of best practices for teaching the principles of Physician Cultural Responsibility are necessary for curriculum building when utilizing the ADDIE method.

Curricular development may take many forms; however, in developing a curriculum using the central values of Physician Cultural Responsibility, there are multiple considerations. The curriculum must tackle difficult topics while being psychologically safe for all involved. It must expand their capacity to be inclusive and empathic while ensuring that they do not suffer moral injury or contribute to compassion fatigue. Students must be challenged to see health

disparities and social determinants of health in real-time and to understand their causes and thus the road to solutions without becoming withdrawn and overwhelmed by the work that their chosen field will require. The theories of Multiple Intelligences and Social and Emotional Learning have the potential to meet these needs.

Multiple Intelligences. Howard Gardner's theory of Multiple Intelligences argues that there are many other ways to display intelligence or, "the capacity to solve problems or to fashion products that are valued in one or more cultural setting" (Brualdi-Timmons, 1996, p. 1; Gardner & Hatch, 1989, p. 5). Grounded in psychology, sociology, neurology, biology, anthropology and other areas, this theory describes intelligence as the foundation of skill (Davis et al., 2011; Kezar, 2001; Matto et al., 2006). Prior to Howard Gardener, intelligence was quantified as a genetically linked aptitude for logical deduction. Galton and Piaget argued that intelligence was inherent and secondary to genetics, thus some people or races were inherently smart and others were not (Gardner & Hatch, 1989). Without any consideration of cultural influences, experiences, needs, or otherwise, a Eurocentric lens was used to describe the intelligence of people from all walks of life (Davis et al., 2011; Gardner & Hatch, 1989; Matto et al., 2006). Gardner disagreed.

Gardner and Hatch (1989) argue that intelligence in its many forms, specifically the eight described, are useful in different settings, cultures, areas, and phases of life and therefore, are equally important. Aligning with the most popular concept of intelligence are linguistic intelligence, or the ability to utilize language in both oral and written forms, and logical-mathematical intelligence, or the ability to problem solve using calculations or equations. Those with spatial intelligence are gifted in manipulating images, musical intelligence in creating and arranging sound, and bodily-kinesthetic in movement of the body (Gardner & Hatch, 1989).

Having high naturalist intelligence is associated with differentiating between plants, animals, and weather, interpersonal intelligence yields the ability to understand the emotions and thoughts of others, and intrapersonal intelligence yields knowledge of one's own emotions and thoughts (Brualdi-Timmons, 1996; Davis et al., 2011; Kezar, 2001; Matto et al., 2006; Mbuva, 2003; Strasser & Spelocha, 2005; Thompson & MacDougall, 2002; Xie & Lin, 2009).

Gardner notes that all of these intelligences are possible in human beings, simply because of their humanity (Davis et al., 2011). These intelligences can be developed, and no two people have the same intelligences exhibited in the same way (Davis et al., 2011; Gardner & Hatch, 1989; Kezar, 2001). Yet Gardner opposes attempting to quantify these intelligences as this has been exploited in the past to classify one's intelligence through a lens of racism when race is known to be a societal construct. He encourages the use of the theory of multiple intelligences to be aimed at developing ways to develop multiple intelligences and assisting individuals in achieving success (Wilson & Mujtaba, 2007). As Gardner explains, skills built from intelligences are organized into "domains" or groups created by society like professions or hobbies, thus the intelligences are related to the needs of and the skills one needs in a particular profession or hobby to be successful (Brualdi-Timmons, 1996; Davis et al., 2011; Gardner & Hatch, 1989; Matto et al., 2006; Wilson & Mujtaba, 2007). For adult learners, Mbuva (2003) notes that it can be beneficial for allowing one to consider the theory of multiple intelligences through a lens examining strengths and future as a space for continuous development of interests.

Multiple Intelligences in Medical Education. Medical students must meet a series of criteria before admission including above average grade point averages and scores on the Medical College Admissions Test, or MCAT, essays, and interviews. While studies specifically researching the intelligences needed to be an ethical physician have not been explored, one may

argue that medical students are already selected to have higher linguistic and logical-mathematical intelligence. However, in utilizing Howard Gardener's theory, these are not the only intelligences one would need in order to become a physician. For example, Matto and colleagues (2006) explored the intelligences perceived in social workers, another helping profession that is exposed to challenging scenarios on a daily basis, finding that both interpersonal and intrapersonal intelligences are a necessity in these types of professions. Further, the study revealed that in order to have cultural competency, both interpersonal and intrapersonal intelligences were rated highest.

As Gardner notes, "the health of occupations and professions rests on their ability to develop a good match between the demands of the roles played, and the intellectual profiles of practitioners in the roles" (Matto et al., 2006, p. 415). Physicians are defined as healers, reaching past the medical knowledge to connect with and serve all patients that come their way. While some may become surgeons, pathologists, or radiologists and need to have a higher spatial intelligence, and others may choose the field of physical medicine and rehabilitation and need higher bodily-kinesthetic intelligence (Gardner & Hatch, 1989), all physicians will need higher interpersonal and intrapersonal intelligences. While considering the vast diversity of students in medical education, the theory of multiple intelligences opens a new opportunity to challenge student biases and therefore impact health disparities for generations to come.

As noted, these intelligences must be developed and are dependent upon the amount of exposure that one may experience culturally (Gardner & Hatch, 1989). Thus, if students have been conditioned to develop only the linguistic and logical-mathematical intelligences through the journey to medical school, they may have lower interpersonal and intrapersonal intelligences which are needed to practice humanistic and culturally conscious medicine. Further, students are

a product of their environments and culture, meaning regardless of their interpersonal and intrapersonal intelligence levels, they will bring their own biases and stereotypes to the classroom and if not mitigated, to the exam room (Wilson & Mujtaba, 2007).

Kezar (2001) argues that institutions of higher learning, like medical schools, have a responsibility to create support for individuals to expand their intelligences in their chosen field and create new ways of preparing students for upcoming challenges. In essence, the diversity of student experiences shape the ways in which they will utilize these intelligences, thus creating an educational experience that incorporates multiple intelligences will be more effective (Wilson & Mujtaba, 2007). As culture directly impacts the use of and development of different intelligences, the push for increasing medical student diversity demands change in the way we are teaching.

Best Practices for Developing Differing Intelligences. Developing multiple intelligences can be challenging. While one may be exhibiting strengths in different intelligences, all human beings have the capacity for all intelligences (Davis et al., 2011; Gardner & Hatch, 1989; Kezar, 2001; Lazear, 1992). Moran and colleagues (2006) discuss that as each person's strengths are different, they may have very large differences in the capacity of their intelligences while others may have multiple strengths in intelligences across the board. Just as these intelligences may work to support the development of each other, it is possible to have weaknesses in intelligences that nullify strengths, or even strengths that make up for weaknesses (Moran et al., 2006).

As noted, medical education selects for those who have strengths in logical/mathematical and verbal/linguistic intelligences where intrapersonal and interpersonal intelligences are equally important. Thus, curricula should utilize methods that encourage the strengthening of both intrapersonal and interpersonal intelligences while teaching to assist the development of

Physician Cultural Responsibility. Lazear argues that teaching to strengthen multiple intelligences includes rousing the underdeveloped intelligences through the specific selection of activities, teaching the skills needed, allowing for the practice of the associated skills, and then empowering students to utilize skills in daily living (Lazear, 1992; Xie & Lin, 2009). Further, Xie and Lin (2009) note that courage, creativity, and observation are necessities in teaching to multiple intelligences.

Best Practices for Developing Intrapersonal Intelligence. Intrapersonal intelligence includes the skills of mindfulness, concentration, self-awareness including emotions, critical reasoning, and reflection (Lazear, 1992; Mbuva, 2003; Strasser & Spelocha, 2005; Xie & Lin, 2009). It highlights the self and knowledge of the self which directly assists in students understanding their limits, their needs, their emotions, and their strengths **(**Moran et al., 2006; Strasser & Spelocha, 2005). Increasing Intrapersonal intelligence can foster better self-regulation and decrease burnout. Best practices include reflection activities, opportunities to tap into emotions and process them, mindfulness opportunities, and thinking activities (Lazear, 1992). Studies show that a consideration for direct relation from class to student experiences can foster the development of intrapersonal intelligence skills (Strasser & Spelocha, 2005). Assignments including research, goal setting, and reading can benefit the development of this intelligence (Mbuva, 2003).

Best Practices for Developing Interpersonal Intelligence. Interpersonal intelligence includes the skills of communicating, listening, working in groups, and getting along with others (Lazear, 1992; Mbuva, 2003; Strasser & Spelocha, 2005; Thompson & MacDougall, 2002; Xie & Lin, 2009). It thrives in areas of collaboration and communication and thus can assist students in building better bonds with colleagues and improving communication with patients **(**Moran et

al., 2006). Best practices include opportunities for cooperation and teamwork, peer to peer feedback activities, and opportunities to practice empathy with others (Lazear, 1992; Strasser & Spelocha, 2005; Xie & Lin, 2009). Development of interpersonal intelligence is further fostered through community building (Strasser & Spelocha, 2005). It has been noted that collaboration can assist students in collectively strengthening intelligences together as well as create balance for intelligences where others may not be as strong **(**Moran et al., 2006).

Social and Emotional Learning. Likewise, the benefits of social and emotional learning can contribute to a learning environment that encourages Physician Cultural Responsibility. Social and emotional learning teaches emotional and social skills through competency-based curricula (Hoffman, 2009) to assist in creating an internal locus of emotional control (Boncu et al., 2017). Social and emotional learning includes skills like *Social Awareness* or the "understanding and empathizing with others," *Self-Awareness* or "knowing your strengths and limitations," *Self-Management* or self-control and perseverance, *Relationship skills* or working with others and conflict resolution skills, and *Responsible Decision Making* or "making ethical and safe choices" (Bridgeland et al., 2013, p. 11). Even as social and emotional learning is not currently a standard in higher or medical education, students of all ages have displayed improved success (Elmi, 2020; Hoffman, 2009) with increased academic achievement and skills for future workplace management (Boncu et al., 2017; Bridgeland et al., 2013; Farrell, 2019), improved abilities to cognitively process their emotions (Hoffman, 2009) with lessened burdens of mental health concerns and enhanced stress management skills, and improvement in relational skills (Elmi, 2020). Studies have also shown decreased rates of depression, anxiety, and other mental health disorders (Boncu et al., 2017; Farrell, 2019), while students expressed feeling more

accepted and less isolation (Surr et al., 2018), encouraging the use of social and emotional learning in assisting with medical student and physician burnout.

Like the current frameworks, the Social Emotional Development model focuses on the self, in helping students to better identify what they feel and why, as well as others, in empathy and planning their actions with future consequences in mind. Alternatively, the model also includes the tools to build both professional and personal relationships and the leadership skills essential for the young adult and adult learner. Further, rather than external evaluation, the model utilizes a baseline assessment, goal setting, and self-assessment in a coaching framework that places the power of development and self-improvement into the hands of the learner (Seal et al., 2010).

In a study performed by Elmi (2020), three social and emotional learning competencies from the CASEL framework including self- awareness, social awareness, and relationship skills were identified as most useful for the post-secondary learner and implemented into a challenging science course. Students noted feeling actively involved in the course and included as a part of the learning, as well as respected and valued. It was specifically noted that mistakes became learning opportunities rather than failures (Elmi, 2020). Students also gained skills in time management, goal setting, and managing their stress and emotions which assisted in making learning easier. Moreover, the professor noted that the additional time that was invested in planning the social and emotional curricular portions of the course were met with an improvement in class attendance, better student engagement, increases in academic success in the class, and thus lessened stress for the professor. Results improved in year two of implementation. This demonstrates that students in higher education classrooms not only can

benefit from Social and Emotional Learning opportunities, but the entire classroom can collectively benefit and improve both personally and professionally.

Special Considerations with Utilizing Social and Emotional Learning. Students from other cultural groups, including students of color, can be negatively impacted by the traditional Social and Emotional Learning competencies. Students are often made to feel excluded or as outsiders as they do not personally subscribe to the norms that they have been asked to adopt (Jager et al., 2018), which has also been seen in medical education as a whole (Wyatt, 2021). Self-Awareness and Self-Management competencies have the opportunity to create stereotypes and negative biases by utilizing White cultural norms as a standard (Jager et al., 2018). Social Awareness competencies can ignore student needs when they may have additional stressors in contending with microaggressions or isolation. Responsible decision-making competencies can create negative assessments for interpersonal challenges that are secondary to the present societal inequities, thus blaming students of color.

Social and Emotional Learning groups are said to be best when utilizing collaborative learning or working groups based on balancing student needs, demographics, and strengths to create cohesiveness, respect, and inclusion. While Black students in these groups were seen to have positive correlations between these opportunities and their grades, Black student focus groups discussed that this comes at a cost to student wellbeing similarly to what has been currently documented in medical student experiences (Anderson et al., 2021). Students described experiences filled with racial trauma including microaggressions and macroaggressions, decreased support from teachers and peers and devaluation of culturally important discussions, topics, and needs (Surr et al., 2018).

Inclusive Social and Emotional Learning. One may ask if it is possible to utilize the principles of Social and Emotional Learning to foster more cultural humility and inclusive relationships. Social and Emotional Learning can be a way to bridge gaps between students from different backgrounds, liberating students from the boundaries and ignorance of biases (Six Seconds, 2021). Antiracism naturally utilizes many of the components of the philosophies of Social and Emotional Learning including Self-Awareness, Social Awareness, and Relationship Skills. However, Social and Emotional Learning curricula do not routinely adopt principles of antiracism. These must be added to curricula to allow for Social and Emotional Learning to reach its fullest potential in creating better social and emotional skills for all students and yielding equitable benefits.

While there is an incredible amount of variation in cultural expression of emotions, Durlak and Domitrovich (2015) note that there are no cultural differences in brain development and thus no need for alteration of the competencies fearing damage to the implementation of Social and Emotional Learning framework, but one may disagree. Studies show that Social and Emotional Learning curricula implemented with a lens of racial equity includes creating supportive environments that show respect and inclusion for all students' cultures, needs, and viewpoints (Aspen Institute, 2018). There are Social and Emotional Learning curricular frameworks distinguished as being culturally inclusive. The Circle of Courage is a framework that utilizes the cultural norms of Native American populations to reach youth. They note four competencies including belonging, mastery, independence, and generosity that were chosen through the integration of tribal customs, youth needs, and Social and Emotional Learning theory (STARR Commonwealth, 2021). Likewise, the Ways of Being model developed by the University of Minnesota Extension, utilizes three dimensions including ways of feeling, ways of

relating, and ways of doing to assist students in developing identity, external awareness, and working with others. This focus on development rather than competency (Walker, 2015) affirms student values and individual needs.

Transformative Social and Emotional Learning intertwines relationship building with the appreciation of diversity (Jager et al., 2018). By employing strategies to appreciate other cultures and embracing individual racial identity, Jager and colleagues (2018) note that students are encouraged to value other cultures alongside their own as equal through their self-awareness. Improved social awareness competencies include identifying racism and biases as a part of classroom discussions. Improved relationship skills competencies specifically focus on valuing other cultures. The authors also describe using community building and in-depth explanations for systemic and structural biases to assist in creating more understanding in responsible decision-making competencies (Jager et al., 2018).

Evaluating the Development of Physician Cultural Responsibility in Students.

Aligned with the ADDIE method, the development of curricular content follows the identification of learning goals (Mayfield, 2011) like the goal of improving student development of Physician Cultural Responsibility. Once goals have been identified curricular content can then be selected including the modality of implementation. For the development of Physician Cultural Responsibility, student participation in case-based and role-playing activities can yield key experiences in improving the understanding and practice of the core values of Physician Cultural Responsibility (Brookfield & Hess, 2021, Corneau & Stergiopoulos, 2012; Denevi & Paston, 2006; Hunter & Thomson, 2019; Johnson et al., 2022; King & Castenell, 2001; Pieterse et al., 2016; Santas, 2000; Schiff & Reith, 2012; York et al., 2021). Likewise, student critical reflection activities and self-evaluation are crucial in the evaluation of cultural humility, antiracism and

anti-oppression, advocacy, and self-awareness and self-reflection (Dobie, 2007; Kondrat, 1999; Lazear, 1992; Mbuva, 2003; Strasser & Spelocha, 2005; Xie & Lin, 2009) while peer-evaluation and self-evaluation are key to the assessment of intercultural communication skills (American Medical Association & American Association of Medical Colleges Center for Health Justice, 2021; DeVoss et al., 2002; Dimitrov et al., 2014; Eisenchlas & Trevaskes, 2007). Utilizing these methods within the curriculum can assist in the evaluation of the development of Physician Cultural Responsibility.

Evaluating the Success of Physician Cultural Responsibility Curricula. As Physician Cultural Responsibility has not been utilized in curricula previous to this study, assessment of the success of such curricula must be defined and measured. Various means of assessing curricula by content have been created yet few focus on the impact on the learners' future behavior. While the aim of teaching Physician Cultural Responsibility is targeted to the transference of knowledge into action, the current assessment frameworks available are most applicable to assessing the curricular components rather than transference of knowledge. The most well-known assessment for cultural humility content is the Tool for Assessing Cultural Competence Training created in connection with the Association of American Medical Colleges. This document includes a working framework to ensure that medical school curricula are able to self-assess the cultural competency information in their curricula through *Domains* or over-arching ideas and *Specific Components* that highlight coursework that is important to include (Association of American Medical Colleges, 2006; Jernigan et al., 2016). This yields an opportunity to improve possible areas of weakness that may not be identified otherwise.

The evaluation of transference of knowledge can be said to be best through the assessment of actionable steps and changes after student introduction to the material. This is very

difficult to evaluate in the short term as the changes that students make more immediately may not be sustained. One study has shown promising data that even short-term impacts by curricula can be beneficial for students and the surrounding community. An international study considered the short-term impact of a multi-school curricular framework across five institutions in five different countries after two years of implementation. The results of this evaluation included increases in research, conferences, and new interprofessional relationships centered on community health, increases in student interest in working in underserved areas and more directly, students choosing rotations in underserved areas, changes in the ways the schools deliver care to the communities they serve, and improvements in local health disparities (Ross et al., 2014).

Best Practices for Teaching Physician Cultural Responsibility. Noted by Dr. Virchow in the 1800s, the physician role extends past providing clinical care.

> Medicine is a social science, and politics is nothing else but medicine on a large scale. Medicine, as social science, as the science of human beings, has the obligation to point out problems and to attempt their theoretical solution . . . the physicians are the natural attorneys of the poor, and social problems fall to a large extent within their jurisdiction. (Coria et al., 2013, p. 1442; Dharamsi et al., 2011, p. 1108)

As Physician Cultural Responsibility encompasses the central values of cultural humility, antiracism and anti-oppression, advocacy, self-awareness and self-reflection, and intercultural communication skills, best practices for teaching Physician Cultural Responsibility will reflect the best practices for teaching its components. Some of these best practices may overlap allowing for congruent teaching methods.

Cultural Humility. Cultural humility is defined as a

> lifelong process of self-reflection and self-critique. Cultural humility does not require mastery of lists of 'different' or peculiar beliefs and behaviors supposedly pertaining to different cultures, rather it encourages to develop a respectful attitude toward diverse points of view. (National Institutes of Health, 2007, p. 1)

Unlike cultural competency which focuses on one's knowledge and ability to assign learned and perceived values to a culture of people (Beavis et al., 2015; Foronda et al., 2016; Schiff & Rieth, 2012; Tervalon & Murray-Garcia, 1998), cultural humility aims to assist in facilitating natural relationships that respect the humanity of patients (Nazar et al., 2015; Tervalon & Murray-Garcia, 1998). Concerns of stereotyping and discrimination have been noted when physicians lack consciousness of the sociocultural factors facing patients and the intersectionality that each patient brings (Betancourt et al., 2003; Tervalon & Murray-Garcia, 1998).

In essence, cultural humility is the backbone of humanistic medicine, allowing physicians to connect with their patients regardless of background (Crear-Perry, 2020). Beavis and colleagues (2015) argue that the idea of *cultural safety* is more apt, highlighting the need for understanding multiple points of view when treating patients and recognizing the power differentials that impact health care and outcomes. Foronda and colleagues (2016) note that through cultural humility, patients become partners in their care, they are more likely to trust their physician, and can assist physicians in better understanding the challenges that patients face while trying to be healthy (Foronda et al., 2016).

Cultural Humility Teaching Practices. Studies show a continued need for cultural humility teaching in that it can increase physician understanding of health inequities, improve

relationships with patients, and assist physicians in providing culturally relevant health care (Beavis et al., 2015; Hunter & Thomson, 2019; Johnson et al., 2022). Approaches should include highlighting differences throughout all cultures and focusing on learning from each patient rather than giving lists or stereotypes for learners to try to remember (Betancourt et al., 2003). Utilizing methods to teach Cultural Humility that are longitudinal in nature have shown increases in physician knowledge and communication skills (Hunter & Thomson, 2019; Johnson et al., 2022) while short interventions increase knowledge but not competency (Hunter & Thompson, 2019). Further, successful curricula highlight the integration of pre-clinical and clinical experiences (Hunter &Thomson, 2019; Schiff & Rieth, 2012). These curricula most often include small group activities, sessions or workshops, cases, assigned readings or reflections (Hunter & Thomson, 2019; Johnson et al., 2022; Schiff & Rieth, 2012). Interdisciplinary teams and capstone projects have also been seen to be successful (Hunter & Thomson, 2019; Johnson et al., 2022; Schiff & Rieth, 2012).

Antiracism and Anti-oppression. The current concept of race is derived from a social construct formed during European colonization to classify themselves from the people of color that they were colonizing (Corneau & Stergiopoulos, 2012; King & Castenell, 2001; Sotto-Santiado et al., 2022) This division has been at the crux of inequity in health, medicine, and otherwise. Authors describe four key components to antiracist education including defining and historically teaching racism, developing leadership skills, and creating expectations for accountability (Corneau & Stergiopoulos, 2012; Santas, 2000). Likewise, Sotto-Santiado and colleagues (2022) discuss the importance of also teaching identity, empathy, bias, and systemic structures as students navigate the work of antiracism. It is imperative that medical students understand that being passive is not antiracist, but it is to be opposed to racism and likewise with

anti-oppression (Inoue, 2020). Just as cultural humility is necessary for physicians to care for their patients, having the tools to oppose oppression is essential to practicing equitable medicine as equity demands leveling the playing field, mitigating factors that impact health outcomes.

Antiracism and Anti-oppression Teaching Practices. Prior to diving into the material, students must feel comfortable being vulnerable with those present for these conversations. That can be challenging to do in the large classrooms that medical educators often teach. It is recommended that both small-group discussions and community building activities as well as creating a culture of accountability for one's words and their impacts should incorporated into the classroom to assist in creating a supportive space (Inoue, 2020; Santas, 2000; Strasser & Spelocha, 2005). Strasser and Spelocha (2005) suggest creating a classroom values list to assist in creating this space, discussing both the similarities and different ideas that are offered. Likewise, Hassen and colleagues (2021) note that setting goals and objectives focus the work and can steer the discussion in a productive direction. Resources are available to assist with this work (Society for Teachers of Family Medicine, 2017).

When teaching antiracist and anti-oppression curricula, one must approach the material directly. Hassan and colleagues (2021) mention that using shared definitions can avoid miscommunications and misinterpretations during the course. Students will likely feel uncomfortable, but with approaching the material for what it is, naming the acts of racism, sexism, and otherwise for what they are, while teaching how to oppose them, can assist in moving the conversation along (King & Castenell, 2001). Further, encouraging students to name oppression when it is seen, even in the more inconspicuous places, can assist in helping students to take what they are learning and utilize it. King and Castenell (2001) define *learning edges*, or areas where people are most uncomfortable, as a space that can make students more likely to

learn. Thus, asking learners to examine the reasoning behind their own biases and the areas and people that they attempt to avoid approaching, can push students closer to the learning edges and assist in their growth.

Santas (2000) describes that students should have the understanding that racism and oppression were created and are rooted in power structures to assist students in understanding that oppression can be dismantled like other oppressive forces. Further, the literature suggests that teaching how the social determinants of health are a product of structural racism, rather than the ever-popular list of what the social determinants of health are, will help students to see how action can and will make a difference. Inoue (2020) describes that even language is impacted by the inequities in our society. Breaking those barriers can alleviate the biases present in the way we communicate. To do this, Strasser and Spelocha (2005) encourage activities like sharing personal experiences, individual reflection, and "A Ha! Slips" at the end of class to foster an attitude of inquiry over judgement. Corneau and Stergiopoulos (2012) note the importance of creating opportunities for students to learn about alternative methods of care without judgement or stereotyping as well as a focus on self-reflection and advocacy training.

Teaching Antiracism and Anti-oppression to Predominantly White Classrooms. It is imperative that in the quest for health equity, White physicians are actively involved in fighting racism and oppression. Authors note that White allies often want to make change but can struggle to overcome the feelings of guilt, fear, or shame associated with the circumstances of oppressive systems, relegating them to avoid rather than lean into the learning (Denevi & Paston, 2006; Pieterse et al., 2016). Moreover, White Americans often express their identity and experience life without having to contend with the concept of race or having to acknowledge the privilege that comes with whiteness thus creating an alternative experience to that which people

of color live (Boatright-Horowitz et al., 2012; Brookfield & Hess, 2021; Denevi & Paston, 2006; Pieterse et al., 2016). When paired with anti-racism education and the realities that people of color face, not only does this create a challenge for learners to understand the realities of experiences with racism that colleagues and patients may discuss but can also deepen the cognitive disequilibrium that students experience (Brookfield & Hess, 2021; Pieterse et al., 2016). Students may even utilize privilege to distance from truly connecting with circumstances (Boatright-Horowitz et al., 2012; Denevi & Paston, 2006). Thus, navigating these conversations while learners of color watch, knowing their own experiences, can create a challenging and potentially dismissive space in the classroom (Pieterse et al., 2016).

As learners explore race as a social construct and the stereotypes or biases that they have learned are structurally and societally motivated, the need for individual action can become clearer and empathy more pronounced for this other view that they have not experienced. Thus, as most will agree that racism is wrong, white students can be empowered to utilize their privilege for antiracism, strategically placing the uncomfortability and fear in a place of benefit for both White learners and their patients and colleagues of color (Brookfield & Hess, 2021). Similarly, Denevi and Paston (2006) argue that creating a common identity as "White Antiracists" can assist in seeing racism and biases as a losing situation for those oppressed as well as those who benefit from this oppression. Pieterse et al. (2016) notes four phases to antiracist development including racism education, societal impacts of racism, personal reflection, and antiracist activism. However, for clarity, it is important to note that this is not to create the White savior complex or to imply that people of color inherently need White Americans to save them from racism. This simply directs White learners to the realization that they too have a space in fighting racism as people of color are fighting from a place of systemic

and structural disadvantage and thus the advantages that White students have can be utilized for good through advocacy and allyship.

Further, experts note that educators who are White can make the discussion more comfortable by disclosing their own thoughts and ideas (Brookfield & Hess, 2021). While it is important to discuss the feelings that learners may be facing, it is also necessary to ensure that learners are challenged to consider new ideas and to work through the uncomfortability seen in these conversations, including dealing with the issue of colorblindness or negating the experiences that people of color may have, that may emerge within that conversation (Brookfield & Hess, 2021).

Advocacy. Physicians are leaders in the essence of their position in both the medical team and in their communities at large. In this vein, both the American Council for Graduate Medical Education and American Academy of Pediatrics mandates advocacy training for residents as speaking for patients' needs is a physician's ethical duty (Coutinho et al., 2020; Tervalon & Murray-Garcia, 1998). Advocacy practices can yield better trust in the medical community through activities like sharing narratives that most physicians are qualified to do just as they are practicing medicine (Fried et al., 2019). As 80% of health outcomes are derived outside of the health care system, whether one chooses to advocate for a single-payer health system, legislation to improve the social determinants of health in a particular community, for women's health initiatives, or a new in-office training opportunity, these skills can be used to positively impact patients' lives throughout physicians' careers (Fried et al., 2019).

Advocacy Teaching Practices. Advocacy has been called the most difficult physician role to teach with fewer physicians in academic medicine participating in advocacy work and the perceived lack of flexible curricula to use (Boroumand et al., 2020; Coria et al., 2013; Coutinho

et al., 2020; Dharamsi et al., 2011). There are few documented practices for teaching advocacy to medical students and many curricula used for medical students have been named alternatively including social justice or leadership curricula or certificates (Coria et al., 2013). Much of the research surrounding advocacy curricula has been done in residency programs; however, it can be argued that these principles can be utilized in the medical student population as many of the resources and training opportunities created note utilization in both undergraduate and graduate medical education.

These curricula are most often longitudinal and include electives while covering health disparities, health equity, social determinants of health, and community involvement (Boroumand et al., 2020; Coria et al., 2013; Coutinho et al., 2020). Some curricula also cover health policy and economics (Coutinho et al., 2020). It has been noted that community assessments can assist learners in understanding the inequities in the surrounding community (The EveryONE Project, 2018). Students can find the community improvement plans through the community health department resources or perform their own on through a host of online resources.

Advocacy training that includes bystander training and opposing biases has been successful in helping to dismantle the social categorization of medicine (Pieterse et al., 2016; York et al., 2021). Studies by York and colleagues (2021) describe an interactive workshop including training learners in the bystander responses defined as *Direct* or directly addressing the incident at that time, *Distract* or creating a distraction that prevents continued harm, *Delegate* or encouraging another person to respond, *Delay* or handling the situation at a later time, or to *Display Discomfort* in which one shows discomfort nonverbally to try to discourage the

continuation of the situation. Students were then given the opportunity to role-play these tools and noted improved self-efficacy in utilizing these methods.

Intercultural Communication Skills. Alongside the necessity for cultural humility is the need to communicate with people of different cultures as physicians will be expected to care for people and work with people of different backgrounds. Intercultural Communication is defined as communication, whether written or spoken, between people from different cultures regardless of nationality (Chiper, 2013; DeVoss et al., 2002). Communication is taught and interpreted from the dominant perspective yet many who share identity with that perspective lack awareness that they too have cultural norms (DeVoss et al., 2002; Durant & Shepherd, 2009). Cultural differences may include one's syntax or word choice, language or use of language, customs, understanding of expectations as associated with timing, introductions, and even gestures and physical distance among others (DeVoss et al., 2002; Durant & Shepherd, 2009; Eisenchlas & Trevaskes, 2007). These differences can be misinterpreted and lead to disagreements and unmet expectations.

Studies show that communication is correlated with health outcomes as physicians have the power to encourage or discourage patients from sharing their needs (Betancourt et al., 2003; Tervalon & Murray-Garcia, 1998). Learners will often state that it is important to treat all people the same, yet it is known that all people are not the same and thus people will have different needs. In some instances, the cultural difference can contribute less to impact of communication than the way in which one builds rapport and connect with patients (Briguglio, 2006; Leon, 2020). In areas of communication ideas like hyperindividualism, assumed norms, and hierarchical relationships can negatively impact communication with those from other cultures (American Medical Association & American Association of Medical Colleges Center for Health

Justice, 2021; DeVoss et al., 2002; Inoue, 2020). When learning about communication, students often do not realize that their communication skills benefit both themselves and their patients in providing space for fulfilling and enriching experience (Dobie, 2007).

Intercultural Communication Teaching Practices. Reminding students to approach intercultural communication learning activities using active listening, without judgment, while having an open mind, and with empathy for all sharing is important (Chiper, 2013; DeVoss et al., 2002; Dimitrov et al., 2014). Students should be reminded to avoid using humor if they feel uncomfortable. Peer evaluation can be helpful to encourage students to reflect on areas that they can continue to work on (Chiper, 2013). Students will have different cultural norms and can easily practice the skills of intercultural communication in the classroom. Encouraging diverse small group interactions can give students opportunities to practice these skills in a controlled environment (Dimitrov et al., 2014; Eisenchlas & Trevaskes, 2007). Small group discussions where students are asked to discuss their own cultural norms and values can assist in this (Briguglio, 2006; Chiper, 2013; DeVoss et al., 2002; Dimitrov et al., 2014; Durant & Shepherd, 2009; Eisenchlas & Trevaskes, 2007; Leon, 2020). Best practices include avoiding slang, figures of speech, irony, or sarcasm in communicating between cultures (DeVoss et al., 2002), especially in patient care. Some experts state that using tolerance of accents or different vernaculars of English in these discussions is of value (Briguglio, 2006), however inclusion of multiple communication styles is a better practice in fostering collaborative and fruitful relationships (Dimitrov et al., 2014). Tolerance does not value the differences of others but merely identifies differences with a willingness to endure them.

The Utility of Narrative Medicine. In the human existence, stories capture a unique space in communication as they create a space to divulge what one values or believes and shape our

behavior (American Medical Association and American Association of Medical Colleges Center for Health Justice, 2021). Narratives serve a special purpose in medical education as they have been shown to improve empathy, trust, and compassion in learners (Blackie et al., 2019; Dobie, 2007). Narrative medicine has the power to shift the listener into the perspective of the storyteller, potentially leading listeners to a deeper awareness of their beliefs and values and opening the opportunity for reflection. Narratives in America are often told from the dominant perspective, or the male, cis-gendered, White, wealthy point of view, leaving the narratives of others to be scrutinized through that lens (American Medical Association and American Association of Medical Colleges Center for Health Justice, 2021; DeVoss et al., 2002). Seeking narratives that are derived from other vantage points is key. Aside from reading and analyzing narrative medicine articles or encouraging students to write their own, small group activities where students are given the opportunity to discuss their experiences can be helpful.

Self-Awareness and Self-Reflection. Medicine demands that physicians have the awareness to see the limitations or gaps in one's knowledge, and to note one's own biases in order to overcome them (Kondrat, 1999; Tervalon & Murray-Garcia, 1998). Further, physicians must have the tools to reflect on their needs, progress, and the difficulties associated with the profession. Dobie (2007) notes that the most common concern of graduating medical students is the fear of losing themselves and empathy for others, but by the time students reach the end of residency training, they note the joy they once felt in patient care has diminished.
Self-awareness is defined as the "becoming awake to present realities, noticing one's surroundings, and being able to name one's perceptions, feelings., and nuances of behavior" (Kondrat, 1999, p. 452). As these characteristics enter the patient counter alongside the physician, physicians are most fruitful in encounters where they can be present and collaborate

with the person in front of them. The tool of self-awareness and reflection has the power to support physicians in improving personal fulfillment, which can decrease stress and burnout (Dobie, 2007).

Self-Awareness and Self-Reflection Teaching Practices. Teaching self-awareness and reflection practices must be purposeful and interwoven throughout the curriculum as students often discount the strength of these aspects in their career (Dobie, 2007). Curricula should include the discovery of self, culture, and values (Dobie, 2007; Kondrat, 1999) to allow one to consider their experience objectively. Experts recommend leading students through practices that inquire about beliefs, assumptions, expectations, needs, and points of learning to assist in continuing to point students back to focusing on their growth (Dobie, 2007; Kondrat, 1999).

The literature recommends utilizing mindfulness practices including objectively observing situations and emotions and intentionally giving attention to sensations felt, to remain present in challenging situations when emotions flare (Dobie, 2007). Likewise, the Johari Window as discussed by Ramani and colleagues (2017) is an awareness technique that yields a space for student awareness of and reflection upon their personal emotions and actions when interacting with others. This includes that which is known to all, known to self but unknown to others, unknown to self but known to others, and that which is unknown. Teaching this process without feedback can prevent students from having the opportunity of full self-reflection in discovering that which is unknown to self but known to others and improving (Ramani et al., 2017). Similarly, Kondrat (1999) suggests that feedback is elicited to increase objectivity in one's reflective process. Thus, teaching self-awareness and self-reflection act to lead students through managing that which is all can see and that which is known only to the individual, while

processing that which others perceive when it is discovered and discovering that which remains unknown.

Conclusion

Historically, the field of medicine has perpetuated societies oppressive ideology within the exam room, creating the social categorization and hidden curriculum of medicine that continue to support health inequities and disparities. As efforts to overcome these inequities include diversity initiatives that are proven to improve health outcomes, the same ideology has created barriers to both achieving health equity and collegial collaboration. With consideration of the necessity to attending to the humanity within both the patient and physician as a core facet in physician identity that is not currently underscored, Physician Cultural Responsibility provides a practice that incorporates connection, equity and empathy within physician and patient interactions. Utilizing best practices from teaching the five core values of Physician Cultural Responsibility alongside methodology for implementation from the theories of multiple intelligences and social and emotional learning can better support the adoption of Physician Cultural Responsibility in physician identity during training, leading to continued development and practice of Physician Cultural Responsibility throughout one's career.

CHAPTER III: METHODS

There is currently a lack of standardized socially responsible curricula for medical schools which leads to the unintentional perpetuation of the social categorization of medicine. This yields physicians that are ill equipped for fighting health disparities caused by the systemic racism that both ails patients and negatively impacts efforts to expand diversity in medicine. One asks the question, does the curriculum designed by this author encourage the adoption of Physician Cultural Responsibility in physician identity development?

Research Paradigm

The transformative paradigm brings forth the needs of the marginalized and oppressed through recognition of inherent power dynamics and seeks change noting the oppressive nature of society and demands a deeper understanding of the population to make change and to help one to make ethical decisions going forward (Mertens, 2009). Utilizing a transformative paradigm yields the opportunity to explore the creation of Physician Cultural Responsibility in making the change sought both in the field of medicine and for the improvement of health inequities across the nation. In this instance, it is noted that each culture is due respect and dignity through the creation of just policies, effective intercultural communication, and the respect for cultural expression and differences created by cultural social norms. This spans from the care provided to patients, those providing the care, and the educational process of trainees including medical students. Additionally, the transformative paradigm values all realities at play specifically describing the impacts of power and social injustices on the realities that one may or may not experience (Mertens, 2009). When considering socioeconomic status for example, one who has fewer resources may view meals through the need to eat, whereas another who has more resources may see meals as an opportunity to indulge in something that tastes good or further, is

presented as a work of art (Beech et al., 2021). Thus, learning the reality of disenfranchised patients and those experiencing health inequity is essential for medical students and current physicians just as the documentation of student realities is a necessity for the professor in truly aligning with the transformative paradigm. A strong value of understanding of power dynamics, societal oppression, and their historical significance is key to the epistemology of the transformative paradigm (Mertens, 2009). As such, we utilize a curriculum that incorporated anti-oppressive and cultural humility education resources, alongside the tenants Physician Cultural Responsibility, critical theory, and transdisciplinary practices. This encourages Physician Cultural Humility as a pillar in one's physician identity, encourages critical self-reflection in professional and personal identity development, and empowers students of the curriculum to seek the realities unknown to them through enhancing intercultural communication skills while using the transformative paradigm.

The transformative paradigm also supports methodology that creates involvement between the researcher and the participants to better gather realities, experiences, and understand power structures (Mertens, 2009). As development of identity is intertwined with experiences, transformative learning bred out of the transformative theory and transformative research paradigm yields a scaffold for students to learn and grow while exploring what that which is presented means to them. This learning theory incorporates four components hinged on self-reflection including describing present perspective, learning alternative perspectives, changing perspective, and then changing behavior (Brookfield, 2010; Cranton, 2016). Having the opportunity to learn from those of different identities in the classroom is key to cultivating the practice of Physician Cultural Responsibility, especially when one may be blind to the experiences that those of other identities have within the same spaces.

Cranton (2016) further discussed that adult learners come voluntarily to education with a goal in mind. They often have more control and management in their learning, focused on problem solving and applying their knowledge to the situations needed. With more experiences and beliefs Brookfield (2010) notes “disorienting dilemmas” (p. 78), or situations that are counter to one’s status quo, can provide a way to incorporate new information into one’s perspective. In adult learners, this can come from sharing experiences (Cranton, 2016). While transformative learning is voluntary, Cranton (2016) argues that adulthood brings the ability to self-reflect and make changes, thus allowing for changes in mindset and values. This opportunity may provide the necessary space to reflect and change behavior early within medical training before students even interact with their first patient.

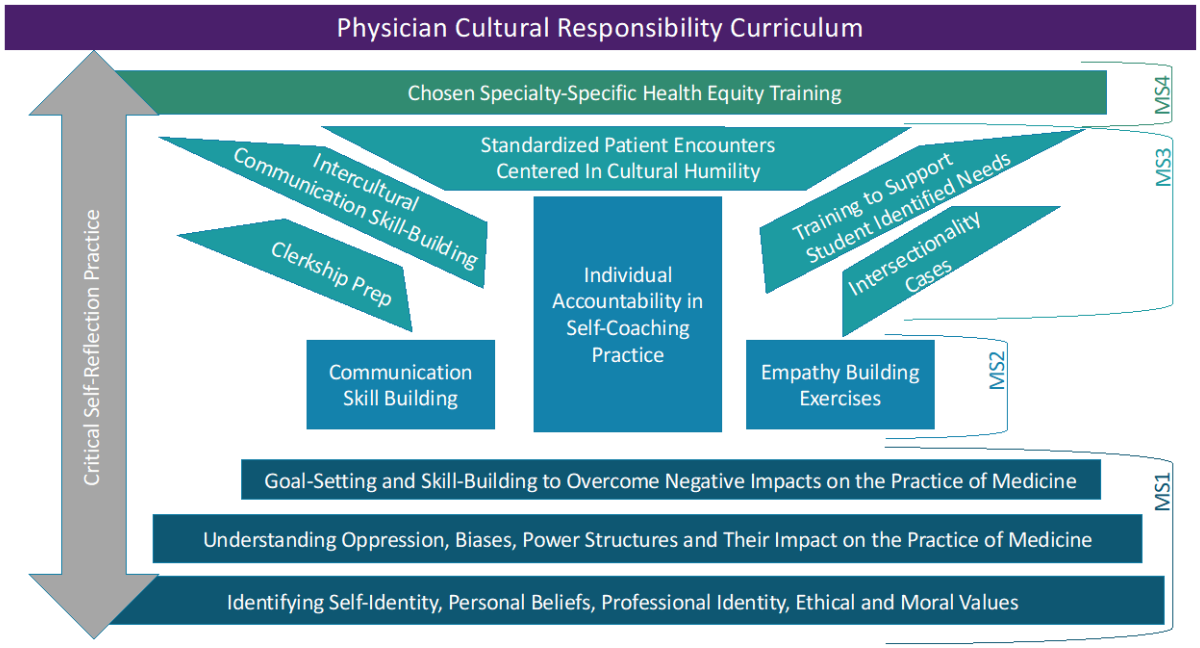
Methodology: Using the Physician Cultural Responsibility Curriculum

Physician Cultural Responsibility Curriculum

The proposed curriculum has been designed by blending the expertise of medical practice, public health practice and research, and formal educational theory and curriculum design to create a high yield learning experience that both challenges and supports learners through the difficult work of developing Physician Cultural Responsibility. Rooted in an innovative framework that encourages critical self-reflection, community building, and supportive challenges, learners will be guided through a groundbreaking multiphase educational journey. Much like a tree, the Physician Cultural Responsibility curriculum begins with establishing a deeply rooted foundation (Figure 3.1), providing first year medical students with a shared learning experience including the realities off bias and oppression in medicine and a framework to begin to counter the social categorization of medicine as they face it during their training.

Figure 3.1

Physician Cultural Responsibility Curriculum



Note. Outline of Physician Cultural Responsibility Curriculum over four years.

Students will continue their upward growth in their second year through experiences with narrative medicine and reflection to further develop their skills in empathy and prepare themselves for the emotional challenges one will face when caring for real patients on the wards. During the third year, students will be stretched to utilize the skills they have developed in Physician Cultural Responsibility in case studies, skills workshops, and deeper reflective exercises, expanding both their skillset and aptitude for self-awareness and self-reflection. Finally, students in their fourth year will begin preparation for their career with specialty-specific opportunities to practice physician cultural responsibility as budding physicians. This study will focus on the first-year course of the curriculum.

Curriculum Map and Topics. Curriculum development was achieved utilizing the ADDIE method to identify the methodology, curricular topics, and learning activities that would

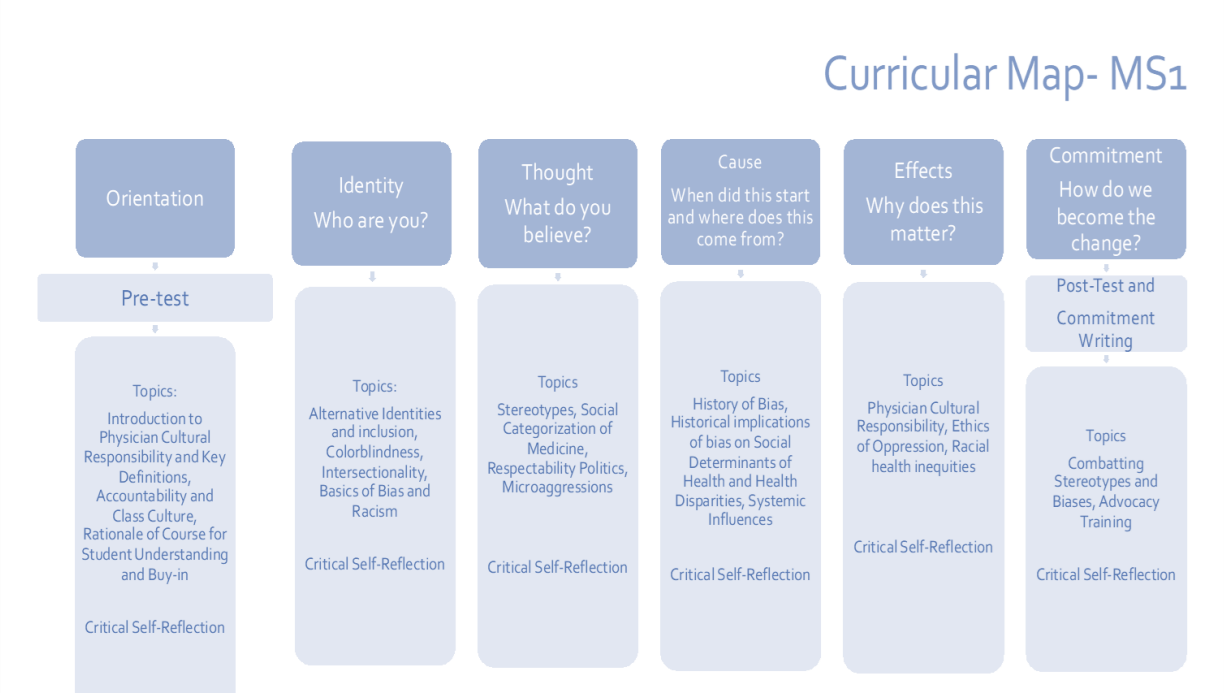
be most successful in achieving the aforementioned goals (Mayfield, 2011). This method supports thorough and thoughtful development of curricula and learning materials through continued focus on goals and outcomes. Validated tools and resources are utilized where possible and tailored to fit the needs of the students in the population. This was specifically important with in-class activities and discussion topics. Special considerations were taken in teaching Physician Cultural Responsibility including the average identity composition in medical school courses and the current political climate which has the potential to isolate or threaten student openness and understanding if exposed to false definitions and rhetoric.

The importance of increasing one's interpersonal and intrapersonal intelligences is paramount in utilizing the skills gained through Physician Cultural Responsibility (Gardner & Hatch, 1989; Matto et al., 2006; Wilson & Mujtaba, 2007). The entire curriculum contains components of both opportunities for collaboration, peer feedback, and community building, as well as self-reflection, emotional processing, and personal goal setting (Dobie, 2007; Kondrat, 1999; Lazear, 1992; Strasser & Spelocha, 2005; Xie & Lin, 2009). Likewise, social and emotional learning principles are interwoven to further support the growth of these intelligences and to support intercultural and anti-oppressive learning. All sessions also provide the opportunity for critical self-reflection. Curricular topics were chosen and organized in alignment with the best practices as described in the literature. As each year in the curriculum builds upon the previous, the curriculum supports foundational learning in the first year followed by increased depth in the second, skill building in the third year, followed by specialty-specific and elective learning in the fourth year of curriculum. The sources of best practices are cited next to the component as incorporated.

First Year (MS1). The first-year course of the curriculum holds the core of the curriculum background knowledge and framework for future years. As such, this can be argued to be the most important year of material in the curriculum (Figure 3.2). After completing a pre-test to assess students' previous knowledge, students are led through an initial session that defines Physician Cultural Responsibility and highlights the need for cultural humility in physician development. Community building activities and a discussion of the importance of inclusion and respecting others are also implemented aligned with best practices (Beavis et al., 2015; Foronda et al., 2016; Hunter & Thompson, 2019; Johnson et al., 2022; National Institutes of Health, 2007). A class-wide activity in determining class expectations is included to increase student accountability to self and others as recommended (Inoue, 2020; Strasser & Spelocha, 2005).

Figure 3.2

First Year Course Curriculum Map



Note. Outline of First Year Course Curriculum Map.

In the session titled *Identity*, students define both their own identity as well as learn about the identities of others in the room. Key definitions associated with social identities, biases associated with identity, oppression, privilege, and power structures are discussed including an in-depth discussion of the concepts of intersectionality and colorblindness as noted (Brookfield & Hess, 2021; Corneau & Stergiopoulos, 2012; Hassen et al., 2021; King & Castenell, 2001; Santas, 2000; Zamalin, 2019). With the aim of increasing student comfortability and openness with one another, this session emphasizes the importance of community building and inclusion as well as normalizes the feelings of guilt that students with identities that are noted to have privilege may face as described (Denevi et al., 2006; Inoue, 2020; Santas, 2000; Strasser & Spelocha, 2005). The session entitled *Thought* incorporates the basics of oppression as discussed in the previous session as the foundation for discussing stereotypes, microaggressions, and the social categorization of medicine per best practices (Blackie et al., 2019; Corneau & Stergiopoulos, 2012; Inoue, 2020; Zamalin, 2019). To assist in participation, case studies and videos can prove to be helpful for this session and spur discussion (Brookfield & Hess, 2021).

The *Causes* session begins a second layer of foundational material centering upon the history of oppression and bias and their impact on the creation social determinants of health and health disparities as recommended (Beavis et al., 2015; Corneau & Stergiopoulos, 2012; Hunter & Thomson, 2019; Johnson et al., 2022; Santas, 2000; Sharma et al., 2018; The EveryONE Project, 2018; Zamalin, 2019). This session aims to provide the context needed for students to understand the nature of oppression, as it was once created, and can be overcome (Santas, 2000). In the session *Effects*, the impacts of these historical ills through an in-depth examination of health disparities by identity, the ethical implications of oppression, and revisiting the definition and role of Physician Cultural Responsibility in the practice of medicine in alignment with best

practices (Boroumand et al., 2020; Coria et al., 2013; Coutinho et al., 2020; Sharma et al., 2018; The EveryONE Project, 2018).

The final session entitled *Commitment* follows a post-test assessment of student knowledge. This session also includes an interactive anti-oppression advocacy and bystander training to give the students the tools necessary to advocate for and protect patients, peers, colleagues, and themselves, taking an active stance against oppression as suggested (Brookfield & Hess, 2021; Corneau & Stergiopoulos, 2012; Denevi & Paston, 2006; King & Castenell, 2001; Santas, 2000; Pieterse et al., 2016; York et al., 2021). Students are then given the assignment to create their personalized commitment to becoming the change needed in medicine. As this is student-specific, students may have responses ranging from further education to committing to action and involvement.

Method of Implementation. The first-year course in the curriculum consists of six active learning classroom seminars. These seminars are ideally spaced at least multiple weeks apart and should allow for students to have both small group and large group interactions. As the size of many medical school classes is over 100 students and these activities can be better facilitated to a smaller cohort of participants, the class can be split in half to create two cohorts of students that will take the course. Students prepare for the course with pre-reading or video assignments. Each session of the course is organized by an opening reminder of the agreed-upon expectations and followed by a community-building activity. These community-building activities are created for students to continue to grow in collegiality, trust, and openness while fostering an inclusive environment for all students to share differing experiences. Repeating these courses every session sets the stage for active participation and for students to develop stronger relationships. This is followed by the active learning content which reviews the learning

topics from the preparation activities through pertinent classroom activities including discussions, cases, and small group activities. The sessions then close with the opportunity for reflection about the day as well as the introduction of the reflection assignment which can be completed during the end of the session if time allows or after class, however, both are submitted assignments as feedback is provided.

Reflection Framework. The Physician Cultural Responsibility Framework (Table 3.1) allows for the exploration of curricular activities, current behaviors, needs, and later on, clinical experiences gained through the practice of medicine to be integrated with of the principles of power dynamics and privilege. Curated from the principles of critical self-reflection used in transformative learning and critical theory, this framework encourages the development of a reflective process that supports the continual use and eventual automation of the pillars of Physician Cultural Responsibility in everyday behavior. These areas of reflective space allow for not only reviewing one's current understanding, needs, emotions, and biases as well as the impact of these on interactions with others, but allows for the identification of one's knowledge gaps, assumptions, values, and challenges that can contribute to one's awareness of self and reflection upon personal and professional development needs. This also encourages more effective self-reflection and self-awareness of situations and potential blind spots that students may easily overlook if not prompted including burnout, additional stresses, and avoidance of processing difficult situations.

Table 3.1

Physician Cultural Responsibility Framework

Core Value	Guided Reflection
Cultural Humility	Assessment assumptions of cultural differences and possible labels stemming from biases and stereotypes being utilized
Anti-Oppression	Examination of institutional and societal biases and factor that impact equity in circumstances, environments, and opportunities and thus health outcomes for patients of diverse identities
Advocacy	Analysis of possible interventions and opportunities that improve the access, experiences, and health outcomes that can be impacted by factors like inherent
Intercultural Communication	Analysis of communication styles, word choice, language, and possible assumptions associated with identity, culture, and intersectionality including possible faux pas including microaggressions, tone-policing, gas-lighting, and inherent misinterpretations or misunderstandings
Self-Awareness	Awareness of the condition of the self at this time including emotional state, current biases, boundaries, and one's current level of burnout or investment
Self-Reflection	Reflection upon the stimuli, situation, or challenge including areas of strength and opportunity for growth, future needs and interests, and interests in improvement or further development

During the course, students completed a reflection aligned with the framework after each session. All reflections ask for students to address the self-awareness and self-reflection areas of the framework (Table 3.1) followed by session specific prompts. The reflection associated with the orientation session inquired about initial thoughts and needs as well as ways that one may need to be supported during the course. The reflection following the first class session asked students to consider their experiences with identity within the classroom and to describe any

differences from what they may have thought previously. The reflection following the second class session asked students to consider their experiences with oppressive language and intersectionality and how these may impact medical practice. The reflection associated with the third class session inquire about student thoughts considering the impact of health disparities on patients' intersectionality and medicine. The reflection following the fourth class session asks students to consider physician identity, oppression, and medical practice as well as experiences within the peer evaluation. The reflection after the final class session focuses on the self-awareness and self-reflection portions of the framework and leads the students to begin the self-coaching model as below.

Self-Coaching Model. The self-coaching model was designed by this author in alignment with best practices to provide students with experience for personal goal setting and action planning. Not only does this practice keep students accountable for their progress without overburdening them, it also allows the curriculum to move from being a host of assignments to a learning journey that they have the control to customize and create. Further, these skills are later utilized for the ACGME Milestones in residency. The self-coaching model contains a personal semiannual review of student's goals and progress. The students first create SMART goals with commitment action plans at the end of the first-year class sessions. These are reviewed and critiqued for progress every six months. As some students may find this to be a challenge, mentored coaching is available. This includes a review of goals and progress alongside the instructor and a discussion about the student's learning aims. The students begin the self-coaching model after the final session in the first-year course with setting a 3-month, 6-month, and 12-month SMART goal associated with student identified needs as they move forward in their medical education.

Evaluation of Learning. Pre- and Post-testing will be utilized to assess tangible changes in student mastery of the material during the first year of the course. However, the aim of this work is targeted to the transference of knowledge into action, thus student critical reflection activities, participation, and self-evaluation are key to assessment throughout all levels of the course. Pre- and Post-course assessments are used to evaluate students' knowledge of key terms and general understanding associated with oppression and to guide student awareness of growth.

The pre-course assessment allows the educator to metaphorically poll the audience to assess present knowledge and feelings which can assist in driving the examples and activities used. This may also assist in identifying students that may struggle with the course material based upon personal beliefs and plan for ways to support learners. Knowing this can allow the educator to provide a better and more wholistic learning experience for the group. The post-course assessment gives tangible assessment of student growth and progress during the since the pre-test. Likewise, incorporating the pre- and post- test allows students to follow their progress.

The assessment used was independently developed for this course utilizing best practices and had three sections. The first section incorporates knowledge questions. These questions include defining key terms associated with identity, bias, and oppression. Additional questions themed around factors that impact health outcomes, the social determinants of health, health disparities, and defining care for diverse populations in both multiple choice and true-false modalities are also present.

The second section assesses students' awareness of professional identity through Likert-scale questions. These questions ask students to assess themselves regarding identity development including knowledge of self, needs, values, and beliefs, openness to change and

feedback, and awareness of personal and professional impact on others. These questions were inspired by best practices noted within the literature (Goth et al., 2021; Tagawa, 2019).

The final section aims to gather students' perception of what physician identity includes through extended written responses. Students were asked to discuss their thoughts about the meaning of being a physician, the expectations of physicians, what will be expected of them as they become physicians, and any expected conflicts that they may experience within themselves, their beliefs, values, or culture, and within their responsibility to others closest to them. The pre- and post- tests have the same questions with the exception of two questions in the extended response section of the post-test. These questions ask for consideration of any changes since taking the pre-test and any conflicts that the students may have already experienced. The incorporation of this section was supported by best practices for assessing student understanding of physician professional identity within the literature (Kalet et al., 2016; Vivekanda-Schmidt et al., 2015).

Peer evaluations were utilized at the mid-point and ending of the course to offer real-time feedback to students about their strengths and areas with opportunity for growth and to further the students' development in communication and accepting difficult feedback. Questions include others' perception of the student's personal self-awareness of challenges and cultural responsibility, discernment in word choice or sensitivity in discussion, ethics of actions, and overall respect of colleagues as noted by best practices (Holden et al., 2015).

Rationale

A mixed methods study was completed with qualitative and quantitative segments allowing for a clearer assessment of students' learning and experience with objective and expressive data. The focus on the first-year course of the curriculum allowed for evaluation of foundational learning and initial adoption of Physician Cultural Responsibility in Physician Identity. Adoption in this study is defined as changes observed in themes recorded from student responses as it relates to the expectations of physicians and self, insights to the self and personal beliefs and their relation to patient care and describing perception of physician role as it relates to Physician Cultural Responsibility regarding the pre-test, post-test, and student reflections.

Procedure, Data, and Analysis

A mixed-methods exploratory study was performed including a qualitative data set gathered from student reflections and a quantitative data set gathered from the implementation of the first-year curriculum. The above curriculum was implemented for the first-year class of medical students (n = 132) for the 2022–2023 school year at an average-sized medical school in the Midwest as their cultural competency requirement. The medical school has 83% in-state students with 41.9% of students identifying as male and 58.1% of students identifying as female. Underrepresented minority medical students make up 21% of the student body. There were 132 students within the 2022-2023 first-year class within the medical school.

One-half of the class took the first-year course in the fall and the other half took the course in the spring in alignment with best practices in recognition of the size of the group and ensuring the best possible experience for the students. Students completed the regular class assignments including the following: a pre-test and final test that is given prior to starting the course and after finishing the course respectively, participation in six three-hour sessions that

covered race and oppression in medicine, biases and stereotypes, the social determinants of health and their roots, advocacy and anti-oppression training, and the critical self-reflection submissions following each session.[1] Upon the conclusion of the course for all students, deidentified data including matched pre- and post-test answer responses and deidentified self-reflection submissions were analyzed in aggregate. This was also disaggregated by semester to adjust for potential confounding factors including potential changes in the classroom atmosphere and in the timing between the sessions of the course which may have impacted student openness, reflection, and stress levels during the course sessions, the delay of beginning the course in the second semester, and possible biases from the social categorization of medicine or preconceived notions about the course that could have been acquired during this time.

To assess the adoption of Physician Cultural Responsibility in physician identity development of first-year medical students, analysis of pre- and post-test extended responses describing changes in perception of physician role, individual goals, and challenges was performed. In answering the sub-questions including: the evaluation student understanding of Physician Cultural Responsibility, the description of perceived development of Physician Cultural Responsibility in physician identity development, and the description of student experience while undergoing the curriculum including the assessment of perceived student collegiality and cohesiveness during the curriculum, qualitative analysis of all deidentified critical self-reflection submissions (n = 743) was performed. All coding utilized an inductive approach to value-descriptive hybrid coding method for initial codes followed by line-by-line coding with MaxQDA 2022 software. Codes were validated by ensuring saturation prior to code

[1] These documents were omitted from an appendix to protect course integrity while currently utilized. A detailed description is available within the methodology.

categorization and theme identification. As this data was provided by student assignments and may be impacted by perceptions of grading, this study was designed to address concerns of validity and reliability of the results by utilizing multiple ways to assess adoption of Physician Cultural Responsibility including Pre- and Post-test extended responses, pre- and post-test self-assessment Likert questions, and student reflection responses.

To assess knowledge transfer using this culturally responsible curricula in this cohort of first year medical students, the differences between pre- and post-test scores were analyzed by paired *t*-tests (alpha = 0.05 with SPSS). Successful knowledge transfer was defined as a statistically significant change in a student's knowledge question score between pre-test and post-test.

Limitations

This study was limited by the students' willingness to participate in the curriculum, the vulnerability that students decide to share in their responses, and potential differences in classroom atmospheres between semester class sessions, the delay of beginning the course in the second semester, and possible biases from the social categorization of medicine or preconceived notions about the course that could have been acquired during this time. Limitations were also noted in reproducing the timing between the sessions' dates of the course between the first semester at four weeks between sessions and the second semester with sessions between one and two weeks apart, which may have impacted student reflection and recuperation between sessions, stress levels during the course sessions, and thus student openness to the material.

Delimitations

This study focused on first year medical students in an average sized medical school in the Midwest. This study did not focus on describing knowledge gaps associated with this

material present as students enter medical training as the curriculum was designed to start from shared definitions and to meet students where they were. Additionally, factors like training faculty to carry-out the curriculum were not evaluated.

Ethics

The overall goal of this work was to inform and sensitize future medical doctors to work with diverse groups of patients. In improving individual awareness of biases and improving communication skills, medical students will likely become more prepared to care for patients of all backgrounds, improve their own mental health while decreasing burnout, and create a cultural shift yielding an improvement in the medical educational environment for underrepresented minority medical students and thus improvements in the diversity of physicians overall. In an ideal world, this curriculum will prove successful in achieving these goals. This study is the first step in providing recommendations for best practices in cultivating Physician Cultural Responsibility and validated curricular standards for use in teaching Physician Cultural Responsibility in medical education.

As this research is conducted in established or commonly accepted educational settings and specifically involves normal education practices not likely to adversely impact a student's opportunity to learn required educational content, it was deemed exempt by the Antioch University Institutional Review Board (IRB) and was covered under the departmental research application at the medical school involved. Informed consent was pursued through email allowing students who wished to be excluded from the study to have their data removed from the dataset without any impact on their course grade as course grades has already been entered at the time that this study was completed. Student confidentiality was protected in the deidentification

of all data used and no quotes were utilized in the results to protect anonymity with the sensitive nature of personal reflections surrounding these topics.

Even though exempt, it is important to note that students were unlikely to experience any harm during this course aside from the possible uncomfortable feelings that arise when discussing race and oppression. To prevent additional harms of biased statements, students were empowered to speak up when uncomfortable or hurtful statements were heard. A class-wide conversation exploring the stereotypes and biases that created those ideas were then employed as recommended in the literature followed by exploring alternatives to appropriately describe the intended ideas of the student who made the statement without bias. As the author identifies as both female and a person of color, the author and all teaching team members also participated in activities with students and grading was not based upon opinions or beliefs shared within reflections to lessen the impact of instructor-student power dynamics on unencumbered participation. Students were also encouraged to share personal experiences that may have been counter those previously shared to ensure all student identities were represented within the classroom experience. To further protect students, sessions incorporated small-group discussions and a class code of ethics. Students had both a reporting system for dealing with unprofessional and oppressive comments and breeches of confidentiality while in the classroom as well as peer evaluations to assist in keeping students accountable for their actions and practicing using healthy communication skills to face oppression in the classroom and on the wards. Students were welcome to adjust their participation as needed to mitigate this risk.

Conclusion

This study aims to assess the adoption of Physician Cultural Responsibility in physician identity within first year medical students. Through the transformative paradigm, the first-year

course of the curriculum teaching the practice of Physician Cultural Responsibility was implemented. A study of deidentified student assignments from the course was performed to assess the adoption of Physician Cultural Responsibility. Multiple steps to protect students were taken including deidentification of all data, omission or any quotes when reporting data, and opportunities to review analyzed data.

CHAPTER IV: RESULTS

The above curriculum was implemented for the first-year class of medical students (n = 132) for the 2022–2023 school year at an average-sized medical school in the Midwest as their cultural competency requirement. The medical school has 83% in-state students with 41.9% of students identifying as male and 58.1% of students identifying as female. Underrepresented minority medical students make up 21% of the student body. There were 132 students within the 2022-2023 first-year class within the medical school. One-half of the class took the first-year course in the fall and the other half took the course in the spring completing the regular class assignments. Deidentified data including 119 matched pre- and post-test answer responses and 743 deidentified self-reflection submissions were analyzed in aggregate and by semester.

Students' Initial Thoughts

Students received a pre-test as discussed in detail in Chapter III, with self-assessment questions in topics related to elements of Physician Cultural Responsibility in physician professional identity rated on a Likert scale and written responses related to personal and professional expectations prior to the start of the course. Statistically significant differences were appreciated between students in the first and second semesters prior to starting the course (Table 4.1). These differences were noted in pre-test questions surrounding students' feelings of superiority or inferiority ($P = 0.01$), openness to change and adaptation in becoming a physician ($P = 0.01$), and knowledge of values ($P = 0.012$).

The pre-test written responses centered around students' perception of physician identity and development, perceived expectations, and perceived challenges (Table 4.2). When asked about initial understanding of Physician Identity, students responses included themes surrounding medical knowledge and treatment, compassionate interactions with patients, an

absence of judgement and bias, advocacy, responsibility (Table 4.3). Students noted that they expected their development into physician-hood to incorporate acquiring medical knowledge, learning from peers from different backgrounds, growth and challenges, becoming empathetic, and overcoming biases. When describing personal expectations during this journey, students described professionalism, learning difficult material, working with others, hard work and sacrifice, and caring for others with compassion. Students also described concerns of potential conflicts with responsibilities to loved ones, personal wellness, time management, and imposter syndrome, alongside noting no concerns of potential conflicts. These responses did not differ between semesters.

Table 4.1

Pre- and Post-Test Knowledge and Self-Assessment Question Results

Semester	Pre-Test Self-Assessment Questions vs Post-Test Self-Assessment Questions
Overall	Greater attention to personal needs (P = 0.004) Greater openness to change and adaptation becoming a physician (P = 0.009) Greater differences in expectations (P = < .001) Greater identification of self (P < 0.001) and values (p = 0.012) Greater ability to use personal beliefs as standard for self (p = 0.001) Greater reliance on self-reassurance (p = 0.008) Greater concern with long term implications of words (P < 0.001) and actions (P < 0.001) Greater sense of community (P = 0.009) Greater alignment with physician identity through beliefs and values (p = 0.002) Less association with feeling superior or inferior to others (P < 0.001) Less experiences feeling lost (P = 0.007)
Semester 1	Greater attention to personal needs (P = 0.003) Greater openness to differences in expectations (P = 0.005) Greater ability to use of personal beliefs as standard for self (p = 0.05) Greater concern with long term implications of words (P = 0.003) and actions (P = 0.02) Greater alignment with physician identity through beliefs and values (p = 0.012) Less association with feeling superior or inferior to others (P = 0.016) Less experiences feeling lost (P = 0.003)
Semester 2	Greater identification of self (P < 0.001) and values (p = 0.012) Greater experiences with personal emotions (P = 0.037) Greater ability to use personal beliefs as standard for self (p = 0.003) Greater reliance on self-reassurance (p = 0.026) Greater concern with long term implications of words (P = 0.01) and actions (P = 0.009) Greater sense of community (P = 0.003) Greater openness to change and adaptation becoming a physician (P = 0.003) Greater alignment with physician identity through beliefs and values (p = 0.042) Less association with feeling superior or inferior to others (P < 0.001).
Differences Between Semester 1 and Semester 2	**Pre-Test:** Students' feelings of superiority or inferiority (P = 0.01) Openness to change and adaptation in becoming a physician (P = 0.01) Knowledge of values (P = 0.012) **Post-Test:** Attention to personal needs (P = 0.034) Knowledge self (P < 0.001) Openness to change and adaptation in becoming a physician (P < 0.001)

Table 4.2

Top 5 Pre- and Post-Test Written Question Themes

Pre-Test	Post-Test
Physician Identity • Medical Knowledge and Treatment • Compassionate Interactions with Patients • Absence of Judgement and Bias • Advocacy • Responsibility **Physician Development** • Acquiring Medical Knowledge • Learning from Peers from Different Backgrounds • Growth and Challenges • Empathetic • Overcoming Biases **Personal Expectations** • Professionalism • Learning Difficult Material • Working with Others • Hard Work and Sacrifice • Caring for Others with Compassion **Potential Conflicts** • Responsibilities to Loved Ones • Personal Wellness • Time Management • Imposter Syndrome • None	**Physician Identity** • Elevating patient needs • Countering Biases that Impact Care** • Patient Connections with Safety and Trust • Leadership • Medical Knowledge **Physician Development** • Acquiring Medical Knowledge • Leadership • Overcoming Biases • Patient- Centered Care • Understanding Social Determinants of Health • (Growth)* • (Integrity)** **Personal Expectations** • Learn to be a Resource to Patients • Learning Difficult Material • Caring for Others with Compassion • Learning about Social Determinants of Health • Leadership **Potential Conflicts** • Time Management and Balance • New Values and Beliefs • Responsibilities to Loved Ones** • Personal Wellness* • Personal Expectations of Achievement • (Accountability)*

Note. * Denotes themes emphasized by the first semester, ** denotes themes emphasized by the second semester.

After being introduced to the course orientation which includes community building activities, an overview of Physician Cultural Responsibility, expectations, and the student-led creation of the class code of ethics, student reflections described feelings of excitement and anticipation for the course, noting intrigue alongside the value and necessity of learning this material (Table 4.4). Themes included wanting to know more about communication, specific information about biases, other cultures, and the social determinants of health, as well as looking for new experiences. Overall, students described classroom needs to include discussion, safe spaces, open communication with peers and faculty, experiences with real-life scenarios, and opportunities for introspection. Differences were noted initial course perceptions, learning needs and classroom needs. Students in Semester 1 prioritized learning about communication and themes within classroom needs centered upon safe spaces and teambuilding opportunities. Students in Semester 2 noted a greater emphasis on themes surrounding feelings of reassurance and appreciation for the opportunity to engage in this material as well as prioritized learning about biases.

Table 4.3

Top 5 Reflection Themes by Session

Orientation	Identity	Thoughts	Cause	Effects	Commitment
Needs • Opportunities for Discussion** • Safe Space* • Open Communication • Real Life Scenarios • Introspective Opportunities **Learning** • Communication Skills • Information about Other Cultures • Biases** • SDOH Impact on Treatment • New Experiences **Thoughts About Course** • Excitement • Important/Necessary** • Anticipation • Interest • Valuable	• Realizations about the Impact of Identity* • Grappling with Privilege and Intersectionality** • Connection to Others and Belonging* • Reflection on Previous Beliefs, Behaviors, Impact on Relationships with Patients • Identified Knowledge Gaps	• Significance of Words and Actions* • Tangible Actions to Counter Biases** • Reflection on Behaviors- Concern for Past, Awareness for Previous • Positive Experiences with Classmates- Discussion, Shared Experiences • Emotions	• Impacts of SDOH on Medical Practice • Historical Context of SDOH • Context of Redlining and Impacts on Modern Day • Impacts of Historical Factors on Patient Care • Emotions	• Physician Professional Identity and Medical Practice • Impact of Physician Cultural Responsibility in Physician Identity • Peer Evals Good Opportunity- Improved Openness • Visualizing Personal Growth* (Collective)	• Community Involvement • Additional Education • Tangible Action- Advocacy, Leadership** • Tangible Skills- Communication, Clinical Skill • Be More Aware- Situations, Self, Continue Reflection*

Note. * Denotes themes emphasized by the first semester, ** denotes themes emphasized by the second semester.

Understanding of Physician Cultural Responsibility

Students participated in sessions that covered individual identity, patterns of oppression, the context of and impact of the Social Determinants of Health, and communication skills to encourage further understanding of Physician Cultural Responsibility with the aim of adoption and practice. Students' reflections incorporated experiences with privilege, especially when privileged in one identity and oppressed in another, realizations about the impact that identity can have on others including unrecognized oppression, silent suffering, and unintentional assumptions, reflection on personal beliefs, perceptions, and the impact identity can have on patient interactions, and the identification of knowledge gaps (Table 4.3). Semester 1 noted greater themes surrounding the realizations of identity while Semester 2 emphasized experiences with privilege.

Themes also reflected a strong consideration of the significance of words and actions and tangible action steps to avoid stereotypes and microaggressions (Table 4.3). Students also noted reflecting upon behavior previously and awareness for future interactions as well as contemplation of experiences discussed in groups described as commonly experienced or witnessed. Students in Semester 2 prioritized themes surrounding tangible action steps to avoid stereotypes and microaggressions.

Further, themes reflected a greater understanding of the impact of social factors on health through understanding the causes of the social determinants of health as well as the harms of avoiding these factors in care plans. Students noted gaining context for these causes specifically highlighting the impact of the redlining learning activity, appreciating the impact of intersectionality and biases on patient care, and greater appreciation for the historical context to

current health disparities as much of the history of medicine and these factors was unknown previous to this course. There were no differences between semesters in this analysis of themes.

Adoption of Physician Cultural Responsibility in Physician Identity Development

Both qualitative and quantitative data sources support students' adoption of Physician Cultural Responsibility in their physician identity development. The students completed the post-test which asked the same student self-assessment questions as well as the students' perception of physician identity and development, perceived expectations, and perceived challenges again. Overall, statistically significant changes were also noted in student self-assessment in topics related to elements of Physician Cultural Responsibility in physician professional identity development between the pre-test and post-test (Table 4.1). Students noted greater attention to personal needs ($P = 0.004$), greater openness to change and adaptation becoming a physician ($P = 0.009$), to differences in expectations ($P =< .001$), identification of self ($P < 0.001$) and values ($p = 0.012$), personal beliefs as standard for self ($p = 0.001$), and self-reassurance ($p = 0.008$) and greater concern with long term implications of words ($P < 0.001$) and actions ($P < 0.001$). Students noted less association with feeling superior or inferior to others ($P < 0.001$) or feeling lost ($P = 0.007$). Likewise, students noted greater sense of community ($P = 0.009$), and alignment with physician identity through beliefs and values ($p = 0.002$). Statistically significant differences were again appreciated between students in the first and second semesters surrounding attention to personal needs ($P = 0.034$), knowledge self ($P < 0.001$), and openness to change and adaptation in becoming a physician ($P < 0.001$).

For students in Semester 1, statistically significant changes were noted in student self-assessment in topics related to elements of Physician Cultural Responsibility in physician professional identity development on the pre-test and post-test (Table 4.1). Students noted

greater attention to personal needs (P = 0.003), openness to differences in expectations (P = 0.005), identification of personal beliefs as standard for self (p = 0.05), and concern with long term implications of words (P = 0.003) and actions (P = 0.02). Students noted less association with feeling superior or inferior to others (P = 0.016) or feeling lost (P = 0.003). Students noted greater alignment with physician identity through beliefs and values (p = 0.012).

Students in Semester 2 also displayed statistically significant changes which were noted in student self-assessment in topics related to elements of Physician Cultural Responsibility in physician professional identity development on the pre-test and post-test (Table 4.1). Students noted greater identification of self (P < 0.001) and values (p = 0.012), experiences with personal emotions (P = 0.037), personal beliefs as standard for self (p = 0.003), and self-reassurance (p = 0.026), concern with long term implications of words (P = 0.01) and actions (P = 0.009). Students noted less association with feeling superior or inferior to others (P < 0.001). Students also noted greater sense of community (P = 0.003), openness to change and adaptation becoming a physician (P = 0.003), and alignment with physician identity through beliefs and values (p = 0.042).

Likewise, written responses aligned with Physician Cultural Responsibility suggesting adoption (Table 4.2). Students described understanding physician identity through themes of elevating patient needs, actively countering biases that impact patient care, cultivating connections rooted in safety and trust with patients, leadership, and having a competent fund of medical knowledge. The expectations of the physician development journey were relayed through themes including acquiring medical knowledge, leadership, overcoming biases, focusing on patient centered care, and understanding the social determinants of health and their impact on patients. When describing personal expectations, students discussed themes of learning to serve

as a resource to patients alongside learning to treat patients, caring for patients with compassion, incorporating knowledge of the social determinants of health into patient care, and serving as a leader in the community as well as the medical team.

Student concerns of potential conflicts included themes of time management and balance, new values and beliefs, responsibilities to loved ones, personal wellness, and personal expectations of achievement. Students in Semester 1 emphasized the themes of continued growth as an expectation on their journey to becoming a physician as well as themes of personal wellness and accountability as a perceived conflict. Students in Semester 2 highlighted the themes of overcoming biases as an aspect of physician identity, integrity as an expectation on their journey to becoming a physician, and responsibilities to loved ones as a perceived conflict.

Students' reflections also suggested the adoption of Physician Cultural Responsibility into their understanding of physician identity (Table 4.3). Students described the impact of physician identity on practice including ignorance to biases and power differentials that can cloud one's impact regardless to intentions. Themes including understanding the social determinants of health, patient centered care, medical ethics, opposition to biases and oppression, leadership, communication and word choice, and advocacy were noted in alignment with Physician Cultural Responsibility. Students most often associated Physician Cultural Responsibility with the medical ethics tenants of non-maleficence or not doing harm, and justice. Students in Semester 1 emphasized the impact of communication and word choice while students in Semester 2 emphasized the impacts of biases as themes.

After completing the course, students were asked to create goals to incorporate over the upcoming year. Themes found in responses further supported ongoing development aligned with Physician Cultural Responsibility (Table 4.3). Students noted themes including community

involvement including learning more about the community needs and history and volunteer work through an upcoming global health trip, continued education about oppression and biases, from peers and future patients' stories, and about health disparities and research. Students also described themes including personal calls to action through situational awareness and advocacy, acquiring additional tangible skills, and continued improvements in self-awareness of personal biases, self-reflection, and commitments to appreciating different views and cultivating safe spaces. Students in Semester 1 amplified themes incorporating self-awareness while students in Semester 2 emphasized action and leadership.

Student Experience

General Experience

During the course, students overwhelmingly noted positive experiences in reflections (Table 4.3). Themes described noticeable growth in awareness of biases and knowledge gaps, using skills gained in the course during class including considerations in word choice and assumptions, appreciation for conversations outside of personal comforts, and opportunities to learn about others in an academic space. Students in Semester 1 emphasized more themes associated with growth in awareness. While participating in sessions, students described a wide range of emotions in themes including appreciation and hope, shock and surprise, sadness and disappointment, frustration and uncomfortability, guilt and vulnerability, and disbelief. Yet analysis unveiled themes of safety, appreciation for support and reflection, and resolution to action or contemplation when working through these encounters. The analysis of student responses also revealed themes associated with a resistance to new ideas and rejection of others' experiences however these themes were the lowest frequency within the analysis and only present within the second semester.

Collegiality and Cohesiveness

Themes identified in student responses support improvements in collegiality and cohesiveness including open spaces for discussion and learning about others, realization of similarities among classmates, insight into the challenges that others may be facing, and a sense of belonging within the classroom (Table 4.3). This was elevated in responses from Semester 1. Additionally, students' reflection responses surrounding the opportunity for oral peer evaluation were overwhelmingly positive. Themes included improved openness within their group through discussing need, identification of both strengths and areas of improvement as a group, as well as individual feedback including participating more, considering word choice, and increasing openness to others' ideas. This was also noted to improve awareness of the needs of underrepresented identities within groups as students were able to share their experiences within group discussions. Students in Semester 2 emphasized themes noting areas of improvement rather than improved group dynamics.

Knowledge Transfer

There were 119 students that completed the knowledge questions for both the pre-test and post-test. For students from both semesters there were statistically significant changes between the pre and post test scores surrounding questions with the following themes (Table 4.4): the social determinants of health ($p = 0.041$), health disparities ($P < 0.001$), and key definitions ($P < 0.001$). There were no statistically significant changes seen with questions with the following themes: factors that impact health outcomes ($p = 1$) and defining interactions with diverse patient populations ($P = 0.319$). There were statistically significant differences appreciated between the pre-test answers of the two cohorts for questions themed in the social determinants of health ($P = 0.05$).

Table 4.4

Knowledge Transfer Results

Pre- and Post- Test Question Topic	P Value for Pre-test vs Post-test for Students in Semester 1	P Value for Pre-test vs Post-test for Students in Semester 2	P Value for Pre-test vs Post-test for Students in both semesters	P Value comparing scores between Students in Semester 1 and 2 (Pre-test, Post-test)
Factors that Impact Health Outcomes	1	1	1	0.323, 0.323
SDoH	0.228	0.058	0.041	0.05, 0.155
Health Disparities	0.010	0.007	<0.001	0.969, 0.553
Defining Care for Diverse Populations	0.321	1	0.319	0..321, 0.109
Key Definitions	0.047	0.002	<0.001	0.109,0.504

Students in Semester 1 (n = 60) displayed statistically significant changes between the pre- and post-test surrounding questions themed in health disparities (P = 0.010), and key definitions (P = 0.047). There were no statistically significant changes seen for themed in the social determinants of health (P = 0.228), factors that impact health outcomes (p = 1) and defining interactions with diverse patient populations (P = 0.321). Students in Semester 2 (n = 59) displayed statistically significant changes between the pre-test and post-test surrounding questions themed in health disparities (P = 0.007) and key definitions (P = 0.002). There were no statistically significant changes seen questions themed in factors that impact health outcomes (p = 1), defining interactions with diverse patient populations (P = 1), and the social determinants of health (P = 0.058).

Based upon the results noted within the themes of student reflections as well as the pre-test and post-test self-assessment and written response questions, the designed curriculum encouraged the adoption of Physician Cultural Responsibility in physician identity development of first year medical students. Successful knowledge transfer was noted in aggregate and for both

semesters for questions themed in health disparities and key definitions and in aggregate for questions themed in the social determents of health. Student reflections as well as the pre-test and post-test self-assessment and written response questions showed increased student understanding of Physician Cultural Responsibility. They also described the initial development of Physician Cultural Responsibility in physician identity development through a transition from the traditional physician as hero rhetoric, to physician as a trusted leader and advocate who has knowledge gaps that one can improve as well as personal beliefs and values that must be tended. Further, student reflection responses described a positive skewing student experience while undergoing the curriculum including increases student collegiality and cohesiveness as well as awareness of the impact of personal behaviors and communication on others, specifically including future patients.

CHAPTER V: DISCUSSION

As our society undergoes the impact of the radicalization of understanding past ills and their impact on future generations, cultivating the integration of Physician Cultural Responsibility into the commonly accepted identity of the physician is essential to overcoming health disparities for people of all identities. A mixed-methods exploratory study of a qualitative data set gathered from deidentified student reflections and a deidentified quantitative data set was employed with the aim of assessing the adoption of physician cultural responsibility in physician identity development of first year medical students. The results of this study suggest successful adoption of Physician Cultural Responsibility in physician identity development in first year medical students where adoption is defined by changes observed in themes relating to the expectations, insights and perception of physician role and self as it relates to Physician Cultural Responsibility. Successful knowledge transfer and the cultivation of a positive learning environment utilizing a curriculum designed through the best practices of Physician Cultural Responsibility were also observed. Further consideration of the results describes additional insights to the current study, limitations, and observations for future opportunities.

Implications for Scholarship

Adoption of Physician Cultural Responsibility

Both the quantitative and qualitative data support the successful adoption of Physician Cultural Responsibility in physician identity development within this study. Quantitatively, students noted statistically significant growth within the areas pertaining to definition and the core values of Physician Cultural Responsibility including cultural humility, inclusive interactions, further insights into the self, openness to differences, and care for self. Areas with the largest change include openness to differences in expectations, identification of self

regarding awareness of ones' own beliefs, values, needs and preferences, concern with long term implications of words and actions, and less association with feeling superior or inferior to others. This transformation may provide students with various foundational skills. Increasing openness to differences in expectations, concern with long term implications of words and actions, and decreasing associations with feeling superior or inferior to others can assist students in cultivating the awareness and communication skills to facilitate positive interactions with those of different identities in a nonjudgmental and inclusive way. With the current politicization and polarization of educational efforts to teach students about those from diverse identities, it is possible that future students may only have this opportunity to learn this material in this setting. It is commonly agreed that this learning is crucial to improving health outcomes (AAMC, 2006; AAMC, 2021; LCME, 2021). Thus, the widespread implementation of the practice of Physician Cultural Responsibility is likely improve the opportunities that medicine may have to overcome health disparities in providing equitable and culturally relevant care. Further, a greater identification of self can provide better protection from burnout through improved awareness of differences or challenges and thus the ability to better provide for one's own needs and making physicians better able to care for their patients from all backgrounds.

Qualitative analysis of the data from the pre-test and post-test further support the adoption of Physician Cultural Responsibility. Students' perception of physician identity, perceived expectations, and perceived challenges incorporated a greater emphasis on themes associated with Physician Cultural Responsibility. In considering physician identity, there was a noticeable shift from the traditional view of physicians as hardworking superhuman professionals that fight disease to humanistic healers that collaborate with patients and prioritize self-care. When specifically considering the current burnout crisis amongst physicians, this shift

could provide students with insight to protect their moral compass and personal reserves throughout their medical careers. As burnout has been correlated with moral injury and the depletion of personal resources to contribute to work (West et al., 2018; Williams et al., 2019), this may suggest that the practice of Physician Cultural Responsibility can decrease physician burnout rates while improving health outcomes through a greater emphasis on patient intersectionality.

Further, students' expectations of their development into physicians and of themselves were aligned with personal openness and need for growth, tools for mitigating the social determinants of health, overcoming biases, and service to others. Students identified additional conflicts in values and self, associated with alternative viewpoints, biases in colleagues, patients, family, and self, and with personal wellness/burnout prevention. By allowing students to improve their awareness of both their knowledge gaps, biases, and needs for personal wellness, students can better prepare for the challenges ahead and seek the support they need to be successful.

These findings were further supported by thematic analysis of qualitative data from student reflections. Students in both semesters reflected upon their experiences learning about themselves, challenges of both colleagues and patients, the historical implications of oppression on current day health outcomes, and their relation to ones' individual practice of medicine. Results support students understanding of the need for Physician Cultural Responsibility in medical practice as well as their awareness of current stage and future needs in further developing Physician Cultural Responsibility within their physician identity development. This focus on the first-year course of the curriculum aimed to evaluate foundational learning and initial adoption of Physician Cultural Responsibility in physician identity; however, these results

may also support a deepening of physician professional identity development for medical students overall.

Comparing Semester Results. Students in the first semester noted higher scores in knowledge of values and openness to change and adaptation in becoming a physician on the pre-test, however students in the second semester noted higher scores in these areas in the pre-test questions. Likewise, students in the second semester noted higher scores in association with feeling superior or inferior to others in the pre-test questions however on the post-test, students showed significant change with a mean self-assessment score that was not found to be significantly different than students in the first semester session. This may suggest that this course can help students to level the metaphorical playing field, providing the necessary skills associated with Physician Cultural Responsibility regardless of background knowledge, ideas, or values.

Sessions were identical between Semester 1 and 2 aside from changes in the spacing between the semesters. After the initial orientation session, students in Semester 1 had four weeks between each session while students in Semester 2 experienced sessions 1, 2, and 3 weekly followed by one week between each session for sessions four and five. While this change did not seem to impact students understanding of the more concrete material within the course including definitions and the exploration of social factors impacting health outcomes, students undergoing the more compressed timeline notably prioritized actionable outcomes over themes associated with deeper self-awareness and emotional relationship to the material.

Curricula such as this may improve student exposure and create culture change that will improve the continued practice of Physician Cultural Responsibility within the medical field. However, one must have the space to grapple with difficult emotions, grow, and display new

skills rather than having the expectation to immediately overcome challenges (Lazear, 1992; Moran et al., 2006; Strasser & Spelocha, 2005). One must have time for reflecting, practicing newly acquired skills, and observing areas where change is needed as described in the literature (Lazear, 1992; Xie & Lin, 2009). Likewise, increasing social and emotional learning with adult learners is necessary for deepening the skills of self-awareness and self-reflection, key to practicing Physician Cultural Responsibility. This takes time and cannot be rushed.

Thus, this relation between timing of session and a prioritization to more surface level tangible outcomes may come from the inability to emotionally recover from these very sensitive topics when presented with such a small amount of space between sessions. Further, the rigor of the courses that students were undergoing required more of their time during the second semester, additionally creating less space for students' reflection to allow for emotional integration and countering the cognitive dissonance that comes from the more emotional experiences within the course including the deeper integration of learning about others experiences counter to one's own and the direct challenge of one's previous beliefs and values when faced with social constructs that do not align. This is supported by the differences in themes relating to openness and growth observed between the two semesters.

Curricular Assessment

Knowledge Transfer

Successful knowledge transfer was noted overall regarding content including the social determinants of health, health disparities, and key definitions. Though groups were randomized, students in the first semester likely had greater background knowledge associated with the Social Determinants of Health based upon the statistically significant differences found in pre-test scores. This was confirmed through qualitative analysis where students in Semester 2 noted less

experience with these topics. There were no other statistically significant differences between the groups suggesting successful knowledge transfer regardless of the timing of the course or the intervals between sessions. These findings were limited by the ability to quantify knowledge transfer that may have occurred during the study period that was not directly associated with the content of the course. While the students in the second semester were noted to have less experience with the social determinants of health, this may be a greater limitation for the students within the second semester for other areas as they had the opportunity to experience a semester of medical education prior to starting the course.

Curricular Implementation

The alignment of content and implementation was focused on best practices to ensure impacts to students' experiences and scores were associated with the course and not poor design or implementation. Discussions began with a review of the student led class expectations (Inoue, 2020; Strasser & Spelocha, 2005) and incorporated opportunities to reflect on the need for inclusion within the classroom and medicine overall (Beavis et al., 2015; Foronda et al., 2016; Hunter & Thomson, 2019; Johnson et al., 2022; National Institutes of Health, 2007). This was noted to be well received within the students' description of classroom needs including safe spaces and open communication. Throughout the course, students utilized these expectations in their reflections of their behavior and perceived areas for growth. Subsequent sessions incorporated assigned readings, case studies, small group activities, and large group discussions as noted in the literature (Hunter & Thomson, 2019; Johnson et al., 2022; Schiff & Reith, 2012).

Incorporating identity work and linking this material to a demonstration of how biases are employed in society cultivated an overall understanding of privilege and the intricacies of oppression. Alongside the struggle of understanding the vast breadth of identities that are

oppressed and the impact of oppression, students also noted previous assumptions they made. Rather than resulting in widespread conflict, which is most often feared within these spaces (King & Castenell, 2001), the students noted that this increased connection and belonging with others. Students were appreciative for the opportunity to learn from conversations and identified additional areas to learn from.

Themes noted in reflections also supported the utility discussing actualizations of biases in society including stereotypes, microaggressions, and the social categorization of medicine as students noted increased awareness of the significance of their words and actions in both personal and professional interactions as well as empathy for classmates that were impacted and were willing to discuss their experiences. Further, the reflection of one's own past behaviors and considerations for future interactions suggests these activities may not only improve the current classroom climate, but may impact interactions to come, additionally supporting the use of Physician Cultural Responsibility curricula for culture change in medical education. Just as narrative medicine increases empathy (Blackie et al., 2019), these small group discussions may improve student empathy to experiences that they have not had themselves or will not have due to their identity. This can further impact the cogitative dissonance that students experience, pushing them to the *learning edge*s (King & Castenell, 2001) in a way that motivates change rather than only awareness and complacency.

Themes also supported the incorporation of the historical impacts of oppression and bias and their impact on the creation of the social determinants of health and health disparities. Specific care was taken to incorporate material highlighting how oppression, especially in medicine, was formed and can be overcome (Santas, 2000), as well as assisting students in examining the root causes of disparities to overcome them rather than creating solutions for

patients that patch the problems caused by the Social Determinants of Health. Students specifically noted a lack of understanding of the historical context of the Social Determinants of Health and noted that these opportunities changed not only their appreciation for the impact of the Social Determinants of Health on their practice, but the impact of medical history on patient care today. These learning activities were also credited with assisting the students in learning more about the community that their medical education will occur in and gave them better awareness of the cause for their observations of disparities within the exam room. Thus, when creating goals for the self-coaching model, themes overwhelmingly included community involvement alongside deepening education gained.

The interactive anti-oppression advocacy and bystander training was also well received by students. Students especially enjoyed the bystander training. Themes reflected an appreciation for tangible skills as well as intentions to actively counter oppression when given the opportunity. While intentions are not actions, one may argue that even creating the intention to act in overcoming oppression is evidence of successful transference of knowledge to action. This is limited by the inability to predict if these changes will occur in the future but is an area for further exploration after this study.

Student Experience

Best practices including opportunities for collaboration, peer feedback, and community building, as well as self-reflection for emotional processing and personal goal setting were noted to both support the further development of interpersonal and interpersonal intelligence as well as social and emotional learning competencies to facilitate better relationships with others and understanding of self (Lazear, 1992; Moran et al., 2006; Six Seconds, 2021; Strasser & Spelocha, 2005). This is a necessity in utilizing the skills gained through Physician Cultural Responsibility

(Gardner & Hatch, 1989; Matto et al., 2006; Wilson & Mujtaba, 2007). Themes in student reflections reflect relationship development with others as well as increased self-awareness.

The importance of both small group discussion as well as creating a safe and inclusive space within the larger classroom was noted within the literature as well as reflected in student needs and highlights through student reflections. Students were able to utilize these small groups to learn from their colleagues and to build collaboration and understanding in these spaces. This allowed for both a greater sense of belonging and collegiality within the group as a whole as well as honest feedback through peer evaluations. These peer evaluations were noted to have unintentionally provided students who were of underrepresented backgrounds an opportunity to discuss their perceptions of some of the more difficult topics with their classmates in an invited and non-threatening manner. Likewise, students used the peer evaluations as an opportunity to invite their classmates who may have felt less inclined to participate in some of these discussions based on their personal identity to speak up and contribute. This is not only important to foster more inclusive spaces within the classroom but gave students an opportunity to see how they may be perceived and reflect prior to directly caring for patients and making similar mistakes. Themes noted the positive impact of being able to have these learning opportunities with each other and discussing their group dynamics overall.

The importance of having a manageable classroom size was also emphasized during this study as questions and comments sometimes needed additional discussion within the classroom to disassemble vocalized stereotypes and biases. In larger classroom settings this can be very difficult and may become time consuming, leaving less time for the additional classroom

activities. If these situations are not discussed, this can impact the collective safety created in the room as well as allow for the inclusion of stereotypes that the course is intending to overcome.

Additionally, the importance of scheduling sessions for the course is imperative to ensuring students have the mental and emotional capacity to bring both their best selves and recover after sessions. With the aim of increasing student comfortability and openness with one another, discussions to normalize the feelings of guilt that students with identities that are noted to have privilege may face was employed as described (Denevi & Paston, 2006; Inoue, 2020; Santas, 2000; Strasser & Spelocha, 2005). This was well received as students noted these emotions and utilized the Physician Cultural Responsibility framework to identify additional methods to cope with what they were feeling. This was noted throughout the course reflections. However, adequate spacing between sessions, as was mentioned previously, is necessary for students to get the most out of this experience. It was noted that sessions should avoid immediately preceding or following examinations and ideally should not be associated with classes that are known to be extremely difficult. As medical education is a very stressful experience overall, being mindful of creating additional stresses within the curriculum will be necessary to further cultivate the practice of physician cultural responsibility within the classroom and within one's medical practice.

Limitations

Impacted by study design, these results are limited by student openness. As all data were acquired from student assignments, there may be some variability in how open students were with their true beliefs and intentions with consideration student perception of grading. Attempts were made to consider these limitations in the design of the course including the multiple assessments of Physician Cultural Responsibility in Pre- and Post-test extended responses,

pre- and post-test self-assessment Likert questions, and student reflection responses. These results are accepted to be reliable with all of these methods supporting the adoption of Physician Cultural Responsibility in physician identity development.

Implications for Practice

Having a curricular foundation that has shown promise and creating this new ideal or the field of medicine is imperative in changing the inequities in the American health care system. The lack of standardized curricula within this area as well as professional development for physicians to grow and then teach the next generation of physicians is a strong limitation in being able to overcome the challenges of health disparities. This contributes to the perpetuation of these ills with each additional generation of physicians that lack the knowledge to equitably treat patients.

In utilizing Physician Cultural Responsibility curricula within medical education, both faculty and medical schools must be prepared. This study did not evaluate faculty preparedness to teach as the course director and teaching team self-identified their expertise in these topics. Yet for others, it is unlikely that faculty education will cover all one may need to teach this type of material. Further, as many professors in medical schools are physicians by trade, they may not have had any formal education on teaching practices at all, limiting their proverbial toolkit to known learning activities and leaving them unprepared for the concerns associated with of tense conversations and uncomfortability in the classroom (King & Castenell, 2001; Society for Teachers of Family Medicine, 2017; Sotto-Santiado et al., 2022). Teaching material that includes discussions about identity, anti-oppression, and health inequities requires one to have an understanding of the material and the ability to teach through the uncomfortability and unpopular opinion.

Support for Maximizing Impact

Support is necessary to ensure the success of these types of courses including team teaching with other departments or support for further continued education to assist in implementation if need be (King & Castenell, 2001; Sotto-Santiado et al., 2022). This is especially important in the responses that may arise during classroom discussions. If not handled in a way that invites inclusiveness within the space and negates the stereotypes or oppressive nature to the statement, students may feel unsafe preventing them from being able to grow during the course.

Pieterse and colleagues (2016) describe the most common responses to racism that may be seen within the classroom during these conversations. It can be argued that these reactions may also be seen when discussing any type of oppression in a group that includes both those oppressed and those with power. *Affective-Impulsive* reaction is the least socially acceptable, marked with blatant racist ideology without any awareness or remorse for the racism displayed. *Rational* reactions include racist ideology that is understood to be racist but without any impetus to change opinion. These reactions include the defense of negative racial stereotypes without perceived malintent. Brookfield and Hess (2021) recommend stopping the conversation if racist comments are made and addressing them directly through confirming what was heard or interpreted from the statement and stating that the comment is bothersome to the educator, leading a discussion as to why, pointing out the racism in the comment, and ending with a note about the importance of interrupting these comments. Without support, faculty may not feel comfortable or have the skills to protect the safety of all in the classroom.

Having the support of senior leadership at institutions as well as implementing longitudinal faculty development resources can make efforts more successful for educators

(Hassen et al., 2021; Sotto-Santiado et al., 2022). Often these courses are taught by educators of color or other diverse identities, yet with the material that is taught, students give poor reviews that impact the educators' careers and the perception of the course work by those who are less versed in these topics or this phenomenon (Brookfield & Hess, 2021). While opportunities to learn more about the material as well as creating space for educators to practice culturally responsive teaching are necessary for student success and the development of the educator, institutions must support those who are doing this work as well as refrain from only calling on educators of color or diverse identities to be the professors teaching it.

Ideally, it is necessary that institutions fully support these types of curricula which includes leadership support in reviewing institutional policies, longitudinal and interwoven curricular objectives, and actively working change the culture of the institution (Sotto-Santiado et al., 2022). This support also necessitates funding. As this work is emotionally taxing for the professor in both actively facilitating as well as the review of reflections that can be sensitive and contain material that can be oppressive as well as emotionally triggering from student experiences, those who facilitate this coursework must be compensated for their time. From the nuance in crafting activities, to the hours of grading for large cohorts, and the continuous support for students, this task is neither small, nor light and carries the responsibility of humanizing the practice of medicine. Thus, the professor who directs this course and those who hold great responsibility in teaching it need to have the same support as faculty members that hold the ownness of teaching hard science material, including staffing and pay.

While this may be seen as a challenge for some institutions, especially with staffing concerns and dwindling budgets, all medical schools are mandated to provide some type of curricula to cover topics that are directly related Physician Cultural Responsibility by the LCME

accreditation standards. Thus, this work may already be in progress with present financial support. However, in the present societal climate, failing to teach these topics aligned with best practices not only threatens to be ineffective, wasting time and money, it threatens the psychological safety, academic success, and classroom climate and collegiality that the journey to physician-hood demands, especially for students of diverse backgrounds and identities. The reinvestment in the proper implementation of this material, like displayed through the Physician Cultural Responsibility curriculum outlined, can both prevent wasting resources and protect students likely without additional long-term expenditures while impacting the future of medicine and health equity.

Justice Implications

The development of Physician Cultural Responsibility in professional identity is pivotal in medical practice to create long standing awareness of and commitment to a practice of medicine that considers patients' needs and barriers due to social factors. With concern for the impact of structural racism on health disparities, the inequities of the social determinants of health, and the knowledge that patients of diverse identities often have worse outcomes and are offered less options from the medical field, Physician Cultural Responsibility is the key to begin to cultivate a generation of physicians who can equitably care for all patients and reverse the ills of present health disparities. Fostering the development of Physician Cultural Responsibility as an integral part of physician identity is at the center of creating change in the field of medicine. Medicine has attempted to bridge the gap created by health disparities through a myriad of initiatives including increasing physician diversity, increasing access to care with community health centers and the like, and raising awareness through culturally relevant public health

initiatives. In considering the continued challenges facing the aim of health equity, one may argue that these attempts have failed.

Physician Cultural Responsibility has the opportunity to create the culture change necessary within medical education and medicine as a field to allow health equity to become a realization rather than an aspiration. Creating an educational experience fundamentally based on changing the culture of medicine, dispelling the myths that the social categorization of medicine and systemic racism have created, as well as equipping physicians with anti-oppressive practices is a necessity in the fight towards equitable health care. Further, this work is promising not just for patients of diverse identities, but in caring for patients of all identities including those who are White, male, cisgendered, heterosexual, and of higher socioeconomic status by the nature of better understanding the intersectionality of and communicating with each patient. In improving individual awareness of biases and improving communication skills, medical students will likely become more prepared to care for patients of all backgrounds and have the tools to consider how their biases impact the decisions that they make with their patients. Giving students the tools to advocate for their patients, colleagues, and themselves creates a generation of physicians that can better support their patients' health journey. Further, Physician Cultural Responsibility can provide students the tools to improve their mental health, decrease burnout, and create a cultural shift yielding an improvement in the medical educational environment for underrepresented minority medical students and thus improvements in the expected physician shortage and diversity of physicians overall. Cultivating self-awareness and self-reflection is necessary to cope with the emotional process of deconstructing the oppressive ideology that negatively impacts patients and physicians, and build anew, creating a new identity as a physician with a

foundational understanding of their place in the fight against the impacts of oppression on health outcomes in America.

Reflections

Transforming Physician Identity

Identity is known to be multifaceted. Thus, in this effort to humanize physician identity, personal identity is likely to be transformed as well. Just as students questioned past behaviors and preconceived notions that were made about others within the classroom, this experience has also opened opportunities for continued questioning of the personal characteristics they want to embody.

The initial assumed segregation of personal and professional identity noted in Chapter II is likely to align more so with the theories presented by Cruess, leading medical students to not only question their personal values on how patients are to be treated, but how people are to be treated regardless of the role that one may play in their life. Thus, through the practice of Physician Cultural Responsibility, realizations of commonalities beyond societal labels and constructs, personal values and beliefs, provide a scaffold of respect for the human experience. While one can never irradicate all biases or value clashes, one can seek connection through the unifying experiences of humanity even if that means reflecting upon ones' own vulnerability and mortality. This then encourages compassion, understanding, and inclusion of patients' experiences, values, and beliefs into the exam room, regardless of the physician's convictions which one may say encapsulates the ideals of humility and empathy in patient-centered care.

In what ways does one wish to use the power that physician-hood yields, to do only good and no harm? If so, a consideration of how society's socialization of power differentials and acceptable norms interferes with one's ability to see this patient as an autonomous, vulnerable,

and fully deserving human is necessary to ensure that the harms present in medicine today cease. While society may be grasping for labels to create division from all who are different, the practice of Physician Cultural Responsibility is able to reach past what may divide to heal without demanding a loss of self, a sacrifice of personal values, or assimilation into any norm from patients or physicians.

Reflections of the Scholar-Practitioner

The impact of this work has been transformational for this researcher as well. Leading students through this experience has challenged one's own experiences within the exam room and awareness of personal needs. This has been evident in allowing oneself to process emotions between patient encounters and a newly implemented mindfulness practice utilized to counter the moral injury that results from working in a position where so many patients have unmet needs due to inequities in the system. Classroom discussions also pushed one's own understanding of identity and personal intersectionality further. This was noted specifically while facilitating difficult conversations where both the facilitator and students were challenged to accept non-closure with many of the disparities left within healthcare.

Future Considerations

This study which sought to assess the impact of Physician Cultural Responsibility curricula on the adoption of Physician Cultural Responsibility in physician professional identity was successful. Next steps include implementing the additional courses in the longitudinal curriculum and continued study of the development of Physician Cultural Responsibility within physician identity development throughout undergraduate medical education. Additional opportunities to study the impact of the self-coaching model may also be considered. Going forward, additional considerations of the timing of the courses as well as consideration of the

spacing between courses will be observed in hopes of improving student experiences and lessening stresses associated with both this course and medical education as a whole.

As it has been observed that Physician Cultural Responsibility can be adopted in physician professional identity in medical students, one may wonder if the adoption of Physician Cultural Responsibility can be formally observed within graduate medical education and after one becomes a physician. Only time will tell. While additional research questions including the true transference of knowledge to action after completing this coursework as well as faculty training to effectively teach this coursework is of interest, this study provides hope that Physician Cultural Responsibility may be an opportunity to care for both our patients and physicians.

Conclusion

This study suggests that the utilization of Physician Cultural Responsibility curricula can influence the adoption of Physician Cultural Responsibility within physician professional identity in first year medical students. While the study is limited by student openness, the multimodal design of data analysis supports the adoption of Physician Cultural Responsibility in physician identity development within this population. This has the long-term potential to positively impact patient health outcomes, physician collegiality, as well as physician wellness. As differences in results seen between the semester cohorts suggest that this curriculum can assist students at all skill levels and display a necessity for consideration in course scheduling to provide adequate time for emotional processing, investments in faculty training and leadership support are crucial in ensuring successful implementation of Physician Cultural Responsibility curricula within medical education. Future areas of inquiry include the continued development of Physician Cultural Responsibility in physician professional identity throughout medical training,

development of Physician Cultural Responsibility in physician professional identity later in one's career, and the long-term the impacts of the self-coaching model of physician behavior.

References

American Academy of Family Physicians. (2020). *Race based medicine.* https://www.aafp.org/about/policies/all/racebased-medicine.html

American Medical Association and American Association of Medical Colleges Center for Health Justice. (2021). *Advancing health equity: A guide to language, narrative, and concepts*. https://www.ama-assn.org/system/files/ama-aamc-equity-guide.pdf

Association of American Medical Colleges. (2006). *Tool for assessing cultural competence training.* https://www.aamc.org/what-we-do/equity-diversity-inclusion/tool-for-assessing-cultural-competence-training.

Association of American Medical Colleges. (2019). *Diversity in medicine: Facts and figures 2019.* https://www.aamc.org/data-reports/workforce/interactive-data/figure-20-percentage-physicians-sex-and-race/ethnicity-2018.

Ackerman-Barger, K., Boatright, D., Gonzalez-Colaso, R., Orozco, R., & Latimore, D. (2020). Seeking inclusion excellence: Understanding racial microaggressions as experienced by underrepresented medical and nursing students. *Academic Medicine, 95*(5), 758–763. https://doi.org/10.1097.ACM.0000000000003077

Anderson, N., Lett, E., Ngozi Asabor, E., Hernandez, A., Nguemeni Tiako, M. J., Johnson, C., Montenegro, R. E., Rizzo, T. M., Latimore, D., Nunez-Smith, M., & Boatright, D. (2021). The association of microaggressions with depressive symptoms and institutional satisfaction among a national cohort of medical students. *Journal of General Internal Medicine, 37*(2), 298–307. https://doi.org/10.1007/s11606-021-06786-6

Aspen Institute. (2018). *Pursuing social and emotional development through a racial equity lens: A call to action*. The Aspen Institute Education and Society Program.

Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: Evidence and interventions. *Lancet, 398*(10077), 1453–1463. https://doi.org/10.1016/S0140-6736(17)30569-X

Balcioglu, H., Bilge, U., & Unluoglu, I. (2015). A historical perspective of medical education. *Journal of Education in Science, Environment, and Health, 1*(2), 111–114.

Beavis, A. S. W., Hojjati, A., Kassam, A., Choudhury, D., Fraser, M., Masching, R., & Nixon, S. A. (2015). What all students in healthcare training programs should learn to increase health equity: Perspectives on postcolonialism and the health of Aboriginal peoples in Canada. *BMC Medical Education, 15*(155), 1–11. https://doi.org/ 10.1186/s12909-015-0442-y

Beech, B. M., Ford, C., Thorpe, R. J., Jr., Bruce, M. A., & Norris, K. C. (2021). Poverty, racism, and the public health crisis in America. *Frontiers in Public Health, 9*. https://doi.org/10.3389/fpubh.2021.699049

Betancourt, J. R., Green, A. R., Carrillo, J. E., & Ananeh-Firempong, O. (2003). Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Reports, 118*(4), 293–302. https://doi.org/10.1093/phr/118.4.293

Blackie, M., Wear, D., & Zarconi, J. (2019). Narrative intersectionality in caring for marginalized or disadvantaged patients: Thinking beyond categories in medical education and care. *Academic Medicine, 94*(1), 59–63. https://doi.org/10.1097/ACM.0000000000002425

Blaisdell, B. (2005). Seeing every student as a 10: Using critical race theory to engage white teachers' colorblindness. *International Journal of Educational Policy, Research, and Practice, 6*(1), 31–48.

Boatright-Horowitz, S. L., Marraccini, M. E., & Harps-Logan, Y. (2012). Teaching antiracism: College students' emotional and cognitive reactions to learning about white privilege. *Journal of Black Studies, 43(*8), 893–891. http://www.jstor.org/stable/23414680

Boncu, A., Costea, I., & Minulescu, M. (2017). A meta-analytic study investigating the efficiency of socio-emotional learning programs on the development of children and adolescents. *Romanian Journal of Applied Psychology, 19*(2), 35–41. https://doi.org/10.24913/rjap.19.2.02

Boroumand, S., Stein, M. J., Jay, M., Shen, J. W., Hirsh, M., & Dharamsi, S. (2020). Addressing the health advocate role in medical education. *BMC Medical Education, 20*(28), 1–5. https://doi.org/10.1186/s12909-020-1938-7

Bridgeland, J., Bruce, M., & Hariharan, A. (2013). The missing piece: A national teacher survey on how social and emotional learning can empower children and transform schools. A Report for CASEL. *Collaborative for Academic, Social, and Emotional Learning.* https://casel.org/the-missing-piece/

Briguglio, C. (2006). *Empowering students by developing their intercultural communication competence: A two-way process. Educate, advocate, empower.* ISANA International Education Association Inc.

Brookfield, S. D. (2010). Theoretical frameworks for understanding the field. In C. E. Kasworm, A. D. Rose, & J. M. Ross-Gordon (Eds.), *Handbook of adult and continuing education*. SAGE.

Brookfield, S. D., & Hess, M. E. (2021). *Becoming a White antiracist: A practical guide for educators, leaders, and activists.* Stylus Publishing.

Brualdi-Timmons, A. C. (1996). Multiple intelligences: Gardner's theory. *Practical Assessment, Research, and Evaluation, 5*(10), 1–3. https://doi.org/10.7275/7251-ea02

Capers, Q., & Sharalya, Z. (2014). Racial disparities in cardiovascular care: A review of culprits and potential solutions. *Journal of Racial and Ethnic Health Disparities*, *1*(3), 171–180. https://doi.org/10.1007/s40615-014-0021-7

Centers for Disease Control and Prevention. (2021). *The Tuskegee timeline*. https://www.cdc.gov/tuskegee/timeline.htm

Centers for Disease Control and Prevention. (2022). *Unfair and unjust practices and conditions harm Hispanic and Latino people and drive health disparities.* https://www.cdc.gov/tobacco/health-equity/hispanic-latino/unfair-and-unjust.html

Chiper, S. (2013). Teaching intercultural communication: ICT resources and best practices. *Procedia Social and Behavioral Sciences, 93*(2012), 1641–1645. https://doi.org/10.1016/j.sbspro.2013.10.094

Choy, C. C. (2022). *The COVID era is the latest episode of medical scapegoating of Asian immigrants.* History News Network. https://historynewsnetwork.org/article/183624.

Coria, A., McKelvey, T. G., Charlton, P., Woodworth, M., & Lahey, T. (2013). The design of a medical school social justice and curriculum. *Academic Medicine, 88*(10), 1442–1449. https://doi.org/10.1097/ACM.0b013e3182a325be

Corneau, S., & Stergiopoulos, V. (2012). More than being against it: Anti-racism and anti-oppression in mental health services. *Transcultural Psychiatry, 49*(2), 261–282. https://doi.org/10.1177/1363461512441594

Coutinho, A. J., Nguyen, B., Kelly, C., Lin, K., Gits, A., Crichlow, R., & Moreno, G. (2020). Formal advocacy curricula in family medicine residencies: A CERA survey of program directors. *Family Medicine, 52*(4), 255–261. https://doi.org/10.22454/FamMed.2020.591430

Cranton, P. (2016). *Understanding and promoting transformative learning: A guide to theory and practice.* Stylus Publishing.

Crear-Perry, J., Maybank, A., Keeys, M., Mitchell, N., & Godbolt, D. (2020) Moving towards anti-racist praxis in medicine. *The Lancet*, *398*(10249), 451–453.

Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*(6), 1241–1299. https://doi.org/10.2307/1229039

Cruess, R. L., Cruess, S. R., Boudreau, J. D., Snell, L., & Steinert, Y. (2014). Reframing medical education to support professional identity formation. *Academic Medicine, 89*(11), 1146–1451. https://doi.org/10.2307/1229039

Cruess, R. L., Cruess, S. R., & Steinert, Y. (2016). Amending Miller's pyramid to include professional identity formation. *Academic Medicine, 91*(2), 180–185. https://doi.org/10.1097/ACM.0000000000000913

Cuevas, A. G., Dawson, B. A., & Williams, D. R. (2016). Race and skin color in Latino health: An analytic review. *American Journal of Public Health, 106*(12), 2131–2136. https://doi.org/10.2105%2FAJPH.2016.303452

Davis, K., Christodoulou, J., Seider, S., & Gardner, H. (2011). The theory of multiple intelligences. In R. J. Sternberg & S. B. Kaufman (Eds.), *The Cambridge handbook of intelligence* (pp. 485–503). Cambridge University Press. https://doi.org/10.1017/CBO9780511977244.025

Deetz, K. F. (2019). *Setting the historical record straight for the critics of The New York Times project on slavery in America.* The Conversation.

De Leon, A. (2020). *The long history of racism against Asian Americans in the U.S*. PBS News Hour. https://www.pbs.org/newshour/nation/the-long-history-of-racism-against-asian-americans-in-the-u-s.

Denevi, E., & Paston, N. (2006). Helping whites develop anti-racist identities: Overcoming their resistance to fighting racism. *Multicultural Education, 14*(2), 70–73.

DeVoss, D., Jasken, J., & Hayden, D. (2002). Teaching intracultural and intercultural communication: A critique and suggested method. *Journal of Business and Technical Communication, 16*(1), 69–94. https://doi.org/10.1177/1050651902016001003

Dharamsi, S., Ho, A., Spadafora, S. M., & Woollard, R. (2011). The physician as health advocate: Translating the quest for social responsibility into medical education and practice. *Academic Medicine*, *86*(9), 1108–1113. https://doi.org/10.1097/ACM.0b013e318226b43b

Dimitrov, N., Dawson, D. L., Olsen, K. C., & Meadows, K. N. (2014). Developing the intercultural competence of graduate students. *Canadian Journal of Higher Education, 44*(3), 86–103.

Dobie, S. (2007). Viewpoint: Reflections on a well-traveled path: Self-awareness, mindful practice, and relationship centered care as foundations for medical education. *Academic Medicine, 82*(4), 422–427. https://doi.org/10.1097/01.ACM.0000259374.52323.62

Duck, J. D. (2001). *The change monster: The human forces that fuel or foil corporate transformation and change*. Currency.

Durant, A., & Shepherd, I. (2009). "Culture" and "communication" in intercultural communication. *European Journal of English Studies, 13*(2), 147–162. https://doi.org/10.1080/13825570902907185

Durlak, J. A., & Domitrovich, C. E. (2015). *Handbook of social and emotional learning: Research and practice.* The Guilford Press.

Dyrbye, L. N., Thomas, M. R., Huschka, M. M., Lawson, K. L., Novotny, P. J., Sloan, J. A., & Shanafelt, T. D. (2006). A multicenter study of burnout, depression, and quality of life in minority and nonminority US medical students. *Mayo Clinic Proceedings, 81*(11), 1435–1442. https://doi.org/10.4065/81.11.1435

Eisenchlas, S., & Trevaskes, S. (2007). Developing intercultural communication skills through intergroup interaction. *Intercultural Education, 18*(5), 413–425. https://doi.org/10.1080/14675980701685271

Elmi, C. (2020). Integrating social emotional learning strategies in higher education. *Investigation in Health Psychology and Education, 10*(3)*,* 848–858. https://doi.org/10.3390/ejihpe10030061

Eslami, M. H., Zayaruzny, M., & Fitzgerald, G. A. (2007). The adverse effects of race, insurance status, and low income on the rate of amputation in patients presenting with lower extremity ischemia. *Journal of Vascular Surgery*, *45*(1), 55–59.

Espaillat, A., Panna, D. K., Goede, D. L., Gurka, M. J., Novak, M. A., & Zaidi, A. (2019). An exploratory study on microaggressions in medical school: What are they and why should we care? *Perspectives in Medical Education, 8*(9), 143–151.

The EveryONE Project. (2018). *The physician advocate: Advancing policies that support health equity.* American Academy of Family Physicians.

Ezenwa, M. O., & Fleming, M. F. (2012). Racial disparities in pain management in primary care. *Journal of Health Disparities Research and Practice, 5*(3), 12–26.

Farrell, B. (2019). Research roundup: Social and emotional learning. *American Library Association Young Adult Library Services*, Winter 2019, 10–11.

Feagin, J., & Bennefiled, Z. (2014). Systemic racism and US health care. *Social Science and Medicine, 103,* 7–14.

Flexner, A. (1910). *Medical education in the United States and Canada.* Science and Health Publications, Inc.

Foronda, C., Baptiste, D., Reinholdt, M. M., & Ousman, K. (2016). Cultural humility: A concept analysis. *Journal of Transcultural Nursing, 27*(3), 210–217. https://doi.org/10.1177/1043659615592677

Funk, C., & Lopez, M. H. (2022). *Hispanic Americans trust in and engagement with science: Increasing representation in science seen as important for attracting more Hispanic people to science.* Pew Research Center.

Gallagher, A., & Thordarson, K. (2018). *Design thinking for school leaders: Five roles and mindsets that ignite positive change.* ASCD.

Gallion, R. (1994). Medical ethics: Four principles plus attention to scope. *BMJ*, 209, 184–188. https://doi.org/10.1136/bmj.309.6948.184

Gardner, H., & Hatch, T. (1989). Multiple intelligences go to school: Educational implications of the theory of multiple intelligences. *Educational Researcher, 18*(8), 4–10. https://doi.org/10.2307/1176460

Gomez, L. E. (2022). Anti-Latino racism, the racial state, and revising approaches to "racial disparities." *Journal of Public Health Management and Practice, 28*(Suppl 1), s9–s14. https://doi.org/10.1097/PHH.0000000000001439

Goth, K., Schmeck, K., Sharp, C., & Vanwoerden, S. (2021). *AIDA 19+ English*. Academic-Tests.com. https://academic-tests.com/aida/.

Hall, W. J., Chapman, M. V., Lee, K. M., Merino, Y. M., Thomas, T. W., Payne, B. K., Eng, E., Day, S. H., & Coyne-Beasley, T. (2015). Implicit racial/ethnic bias among health care professionals and its influence on health care outcomes: A systematic review. *American Journal of Public Health, 105*(12), e60–e76. https://doi.org/10.2105/AJPH.2015.302903

Hardeman, R. R., Medina, E. M., & Kozhimannil, K. B. (2016). Structural racism and supporting black lives—The role of health professionals. *New England Journal of Medicine, 375*(22), 2113–2114. https://doi.org/10.1056/NEJMp1609535

Harris, Y., Gorelick, P. B., Samuels, P., & Bempong, I. (1996). Why African Americans may not be participating in clinical trials. *Journal of the National Medical Association, 88*(10), 630–634.

Hassen, N., Lofters, A., Michael, S., Mall, A., Pinto, A. D., & Rackal, J. (2021). Implementing anti-racism interventions in healthcare settings: A scoping review. *International Journal of Environmental Research and Public Health*, *18*(6), 2993. https://doi.org/10.3390/ijerph18062993

Hodge, F. S. (2012). No meaningful apology for American Indian unethical research abuses. *Ethics & Behavior, 22*(6), 431–444. https://doi.org/10.1080/10508422.2012.730788

Hoffman, D. M. (2009). Reflecting on social emotional learning: A critical perspective on trends in the United States. *Review of Educational Research, 79*(2), 533–556. https://doi.org/10.3102/0034654308325184

Holden, M. D., Buck, E., Luk, J., Clark, M. A., Szauter, K., & Trumble, J. (2012). Professional identity formation in medical education: The convergence of multiple domains. *HEC Forum, 24*, 245–255. https://doi.org/10.1007/s10730-012-9197-6

Holden, M. D., Buck, E., Luk, J., Ambriz, F., Boisaubin, E. V., Clark, M. A., Mihalic, A. P., Sadler, J. Z., Sapire, K. J., Spike, J. P., Vince, A., & Dalrymple, J. L. (2015). Professional identity formation: Creating a longitudinal framework through TIME (Transformation in medical education). *Academic Medicine, 90*(6), 761–767. https://doi.org/10.1097/ACM.0000000000000719

Howard, B. V., Gidding, S. S., & Liu, K. (1998). Association of apolipoprotein e phenotyppe with plasma lipoproteins in African American and White young adults. The CARDIA study. Coronary artery risk development in young adults. *American Journal of Epidemiology, 148*(9), 859–868. https://doi.org/10.1093/oxfordjournals.aje.a009711

Hu, W., & Lu, J. (2015). Associations of chronic conditions, APOe4 allele, stress factors, and health behaviors with self-rated health. *BMC Geriatrics, 15*(137). https://doi.org/10.1186/s12877-015-0132-y

Hunter, K., & Thomson, B. (2019). A scoping review of social determinants of health curricula in post-graduate medical education. *Canadian Medical Education Journal, 10*(3), e61–e71.

Inoue, A. B. (2020). Teaching antiracist writing. *Journals of College Reading and Learning*, *50*(3), 134–156. https://doi.org/10.1080/10790195.2020.1787079

Jagers, R. J., Rivas-Drake, D., & Borowski, T. (2018). Equity & social and emotional learning: A cultural analysis. *Frameworks Briefs,* November 2018.

Jernigan, V. B. B., Hearod, J. B., Tran, K., Norris, K. C., & Buchwald, D. (2016). An examination of cultural competence training in US medical education guided by the tool for assessing cultural competence training. *Journal of Health Disparity Research and Practice, 9*(3), 150–167.

Johnson, C. (2017). *Opportunity and life-long health outcomes: A review of the effects and proposed solutions of hypersegregation on health disparities*. Core Scholar. https://corescholar.libraries.wright.edu/cgi/viewcontent.cgi?article=1193&context=mph

Johnson, C. (2022). Conquering the health disparities of structural racism. *Journal of Public Health Management and Practice*, *28*(Suppl 1), s15–s17. https://doi.org/10.1097/PHH.0000000000001431

Johnson, C. (2023). Cultivating wellness and cultural humility through self-awareness and self-reflection: The practice of physician cultural responsibility. *Cases on Diversity, Equity, and Inclusion for the Health Professions Educator*. IGI Global.

Johnson, C., Rastetter, M., & Olayiwola, J. N. (2022). Pathways to equity: A pilot study implementing a health equity leadership curriculum in residency education as an antidote to systemic racism. *Journal of the National Medical Association, 114*(2),141–146. https://doi.org/10.1016/j.jnma.2021.12.015

Johnson, C. D., Boatright, D., & Mike, E. (2017, April 12–15). *Cultural humility summit* [Conference Plenary Session]. Student National Medical Association Annual Medical Education Conference. Atlanta, Georgia.

Kalet, A., Buckvar-Keltz, L., Harnik, V., Monson, V., Hubbard, S., Crowe, R., Song, H. S., & Yingling, S. (2016). Measuring professional identity formation early in medical school. *Medical Teacher,* 39(3), 255–261. https://doi.org/10.1080/0142159X.2017.1270437

Kamel-ElSayed, S., & Loftus, S. (2018). Using and combining learning theories in medical education. *Medical Science Educator, 28*, 255–258. https://doi.org/10.1007/s40670-017-0519-9

Kezar, A. (2001). Theory of multiple intelligences: Implications for higher education. *Innovative Higher Education, 26*(2), 141–154. https://doi.org/10.1023/A:1012292522528

King, S. H., & Castenell, L. A. (2001). *Racism and racial inequality: Implications for teacher education.* AACTE Publications.

Kondrat, M. E. (1999). Who is the "self" in self-aware: Professional self-awareness from a critical theory perspective. *Social Service Review*, *73*(4), 451–477. https://doi.org/10.1086/514441

Krishnaswami, J., Jaini, P. A., Howard, R., & Ghaddar, S. (2018). Community-engaged lifestyle medicine: Building health equity through preventive medicine residency training. *American Journal of Preventative Medicine, 55*(3), 412–421. https://doi.org/10.1016/j.amepre.2018.04.012

Kumagai, A. K., Jackson, B., & Razack, S. (2017). Cutting close to the bone: Student trauma, free speech, and institutional responsibility in medical education. *Academic Medicine, 92*(3), 318–323. https://doi.org/10.1097/ACM.0000000000001425

The Lancet. (2021). Racism in the USA: Ensuring Asian American health equity. *The Lancet, 397*(10281), P1237.

Lasagna, L. (1964). *The Hippocratic oath: Modern Version*. NOVA Doctor Diaries. https://www.pbs.org/wgbh/nova/doctors/oath_modern.html#:~:text=May%20I%20always%20act%20so,in%20many%20medical%20schools%20today.

Lawrence, C., Mhlaba, T., Stewart, K., Moletsane, R., Gaede, B., & Moshabela, M. (2018). The hidden curricula of medical education: A scoping review. *Academic Medicine, 93*(4), 648–656. https://doi.org/10.1097/ACM.0000000000002004

Lazear, D. G. (1992). *Teaching for multiple intelligences*. Educational Resources Information Center.

Lehmann, L. S., Sulmasy, L. S., Desai, S., & ACP Ethics, Professionalism and Human Rights Committee. (2018). Hidden curricula, ethics, and professionalism: Optimizing clinical learning environments in becoming and being a physician: A position paper of the American College of Physicians. *Annals of Internal Medicine, 168*(7), 506–508. https://doi.org/10.7326/M17-2058

Leon, L. I. (2020). Teaching communication skill as a part of the basic linguistic training of medical students. *Journal of Romanian Literary Studies, 23*, 188–193.

Liaison Committee on Medical Education [LCME]. (2021). *Functions and structure of a medical school standards for accreditation of medical education programs leading to the MD degree*. Association of American Medical Colleges and American Medical Association.

Liu, C.H., & Chen, J. A. (2022). Anti-Asian racism and discrimination: Implications within the field of medicine. *Asian American Policy Review, 32*(2021–2022).

Lu, J. (2021). Why pandemics give birth to hate: From bubonic plague to COVID-19. *NPR*. https://www.npr.org/sections/goatsandsoda/2021/03/26/980480882/why-pandemics-give-birth-to-hate-from-black-death-to-covid-19#:~:text=Why%20Pandemics%20Give%20Birth%20To,Bubonic%20Plague%20To%20COVID%2D19&text=The%20pandemic%20has%20been%20responsible,the%20spread%20of%20COVID%2D19.

Mann, K. (2011). Theoretical perspectives in medical education: Past experience and future possibilities. *Medical Education, 45*, 60–68. https://doi.org/10.1111/j.1365-2923.2010.03757.x

Matto, H., Berry Edwards, J., Hutchinson, E. D., Bryant, S. A., & Waldbillig, A. (2006). An exploratory study on multiple intelligences in social work education. *Journal of Social Work Education, 42*(2), 405–418.

Mayfield, M. (2011). Creating training and development programs: Using the ADDIE method. *Development and Learning in Organizations, 25*(3), 19–22. https://doi.org/10.1108/14777281111125363

Mbuva, J. (2003). *Implementation of the multiple intelligences theory in the 21st century teaching and learning environments: A new tool for effective teaching and learning in all levels.* Educational Resources Information Center.

McVean, A. (2019). *40 Years of human experimentation in America: The Tuskegee study.* McGill University Office for Science and Society. https://www.mcgill.ca/oss/article/history/40-years-human-experimentation-america-tuskegee-study.

Mertens, D. M. (2009). *Transformative research and evaluation*. The Guilford Press.

Moran, S., Kornhaber, M., & Gardner, H. (2006). Orchestrating multiple intelligences. *Educational Leadership*, *64*(1) 22–27.

National Institutes of Health. (2007). Cultural awareness glossary of key terms. https://www.niehs.nih.gov/news/events/pastmtg/hazmat/assets/2007/wtp_2007ntec_wruc_latino_tips_glossary_508.pdf

National Kidney Foundation. (2021). *Understanding African American and non-African American eGFR laboratory results.* https://www.kidney.org/atoz/content/race-and-egfr-what-controversy

National Library of Medicine (1927). *Trachoma surgery proves too dangerous*. National Institutes of Medicine, Native Voices.

Nazar, M., Kendall, K., Day, L., & Nazar, H. (2015). Decolonizing medical curricula through diversity education: Lessons from students. *Medical Teacher, 37*(4), 385–393. https://doi.org/10.3109/0142159X.2014.947938

Osypuk, T., & Acevedo-Garcia, D. (2008). Are racial disparities in preterm birth larger in hypersegregated areas? *American Journal of Epidemiology*, *167*(11), 1295–1304. https://doi.org/10.1093/aje/kwn043

Pieterse, A. L., Utsey, S. O., & Miller, M. J. (2016). Development and initial validation of the anti-racism behavioral inventory (ARBI). *Counseling Psychology Quarterly, 29*(4), 356–381. https://doi.org/10.1080/09515070.2015.1101534

Pittman, P., Chen, C., Erikson, C., Salsberg, E., Luo, Q., Vichare, A., Batra, S., & Burke, G. (2021). Health workforce for health equity. *Medical Care, 59*(Suppl 5), S405–S408.

Ramani, S., Könings, K., Mann, K. V., & van der Vluten, C. (2017). Uncovering the unknown: A grounded theory study exploring the impact of self-awareness on the culture of feedback in residency education. *Medical Teacher, 39*(10), 1065–1073. https://doi.org/10.1080/0142159X.2017.1353071

Reséndez, A. (2021). *Perspective: The other slavery.* Our shared future: Reckoning with our racial past. The Smithsonian.

Roberts, S. O., & Rizzo, M. T. (2021). The psychology of American racism. *The American Psychologist*, *76*(3), 475–487.

Sabin, J. (2020). *How we fail black patients in pain*. American Academy of Medical Colleges. https://www.aamc.org/news-insights/how-we-fail-black-patients-pain

Salvan, L. (2013). Cultural responsibility. Small steps to restore anthropology in economic behaviour. Interviews and best practices. *Tafter Journal, 63*(September 2013).

Santas, A. (2000). Teaching antiracism. *Studies in Philosophy and Education, 19*(4)*,* 349–361.

Santos, P. M. G., Dee, E. C., & Deville, C., Jr. (2021). Confronting Anti-Asian racism and health disparities in the era of COVID-19. *Journal of American Medical Association*, *2*(9), e212579. https://doi.org/10.1001/jamahealthforum.2021.2579

Sarraf-Yazdi, S., Teo, Y. N., How, A. E. H., Teo, Y. H., Goh, S., Kow, S. K., Tan, J. R. M., Lee, R. B. Q., Ong, Y. T., Chan, N. P. X., Cheong, C. W. S., Kamal, N. H. A., Lee, A. S. I., Tan, L. H. E., Chin, A. M. C., . . . & Krishna, L. K. R. (2021). A scoping review of professional identity formation in undergraduate medical education. *Journal of General Internal Medicine, 36*(11), 3511–3521. https://doi.org/10.1007/s11606-021-07024-9

Schiff, T., & Rieth, K. (2012). Projects in medical education: "Social justice in medicine" A rationale for an elective program as a part of the medical education curriculum at John A Burns School of Medicine. *Hawai'i Journal of Medicine and Public Health, 71*(4), 64–67.

Seal, C. R., Nuamann, S. E., Scott, A. N., & Royce-Davis, J. (2010). Social emotional development: A new model of student learning in higher education. *Research in Higher Education Journal.*

Six Seconds. (2021, March 25). *SEL for equity: In pursuit of antiracist education*. [Video]. YouTube. www.youtube.com/watch?v=N_d_YSH9DhA

Society for Teachers of Family Medicine. (2017). *Toolkit for teaching about racism in the context of persistent health and healthcare disparities*. STFM Annual Spring Conference.

Sotto-Santiado, S., Poll-Hunter, N., Trice, T., Buenconsejo-Lum, L., Golden, S., Howell, J., Jacobs, N., Lee, W., Mason, H., Ogunyemi, D., Crespon, W., & Lamba, S. (2022). A framework for developing antiracist medical educators and practitioner-scholars. *Academic Medicine, 97*(1), 41–47.

Spector-Bagdady, K., & Lombardo, P. A. (2019). U.S. public health service STD experiments in Guatemala (1946-1948) and their aftermath. *Ethics & Human Research, 41*(2), 29–34. https://doi.org/10.1002/eahr.500010

Staats, C., Capatosto, K., Wright, R. A., & Contractor, D. (2015). State of the Science: Implicit Bias Review 2015.

STARR Commonwealth. (2021). *Circle of courage.* STARR Commonwealth. https://starr.org/circle-of-courage/

Strasser, J., & Spelocha, H. (2005). How can university professors help their students to understand issues of diversity through interpersonal and intrapersonal intelligences. *Multicultural Education*, *12*(4), 20.

Surr, W., Zeiser, K., Briggs, O., & Kendziora, K. (2018). *Learning with others: A study exploring the relationship between collaboration, personalization, and equity*. American Institutes for Research.

Tagawa, M. (2019). Development of a scale to evaluate medical professional identity formation. *BMC Medical Education, 19*(1), 63. https://doi.org/10.1186/s12909-019-1499-9

Tervalon, M., & Murray-Garcia, J. (1998). Cultural humility versus cultural competence: A critical distinction in defining physician training outcomes in multicultural education. *Journal of Healthcare for the Poor and Underserved, 9*(2), 117–125. https://doi.org/10.1353/hpu.2010.0233

Thompson, B., & MacDougall, G. D. (2002). Intelligent teaching: Using the theory of multiple intelligences in the inquiry classroom. *The Science Teacher, 69*(1), 44–48.

United States Census. (2021). Quick facts. https://www.census.gov/quickfacts/fact/table/US/PST045221

Vivekananda-Schmidt, P., Crossley, J., & Murdoch-Eaton, D. (2015). A model of professional self-identity formation in student doctors and dentists: A mixed method study. BMC *Medical Education, 15*(83), 1–9. https://doi.org/10.1186/s12909-015-0365-7

Wald, H. (2015). Professional identity (trans)formation in medical education: Reflection, relationship, and resilience. *Academic Medicine, 90*(6), 701–706. https://doi.org/10.1097/ACM.0000000000000731

Wald, H., White, J., Reis, S. P., Esquibel, A. Y., & Anthony, D. (2019). Grappling with complexity: Medical students' reflective writings about challenging patient encounters as a window into professional identity formation. *Medical Teacher, 41*(2), 152–160. https://doi.org/10.1080/0142159X.2018.1475727

Walker, K. (2015). *Ways of being: A social and emotional learning model.* University of Minnesota Extension. https://blog-youth-development-insight.extension.umn.edu/2015/02/ways-of-being-social-and-emotional_4.html

Wang, C. (2022). *How structural medical racism perpetuates Asian American cancer disparities.* NBC News. https://www.nbcnews.com/news/asian-america/structural-medical-racism-perpetuates-asian-american-cancer-disparitie-rcna31486.

Ward, J., & Randall, W. (2020). From college graduate to physician: Professional identity formation. *Medical Education Publish, 9*(180), 1–18. https://doi.org/10.15694/mep.2020.000180.1

Washington, H. A. (2006). *Medical apartheid: The dark history of medical experimentation on Black Americans from colonial times to the present.* First Anchor Books.

West, C. P., Dyrbye, L. N., & Shanafelt, T. D. (2018). Physician burnout: Contributors, consequences and solutions. *Journal of Internal Medicine, 283*(6), 516–529. https://doi.org/10.1111/joim.12752

Whyte, J. (2022). Racial and ethnic representation of participants in US clinical trials of new drugs and biologics. *Journal of American Medical Association, 327*(10), 985. https://doi.org/10.1001/jama.2022.0875

Williams, E. S., Rathert, C., & Buttigieg, S. C. (2019). The personal and professional consequences of physician burnout: A systematic review of the literature. *Medical Care Research and Review, 77*(5), 371–386. https://doi.org/10.1177/1077558719856787

Wilson, S. D., & Mujtaba, B. G. (2007). The relationship between multiple intelligences, culture, and diversity. *International Business & Economics Research Journal, 6*(8), 9–21. https://doi.org/10.19030/iber.v6i8.3393

Wyatt, T. R., Rockich-Winston, N., Taylor, T. R., & White, D. (2020). What does context have to do with anything? A study of professional identity formation in physician-trainees considered underrepresented in medicine. *Academic Medicine, 95*(10), 1587–1593. https://doi.org/10.1097/ACM.0000000000003192

Xie, J., & Lin, R. (2009). Research on multiple intelligences teaching and assessment. *Asian Journal of Management and Humanity Sciences, 4*(2-3), 106–124.

York, M., Langford, K., Davidson, M., Hemingway, C., Russell, R., Neeley, M., & Fleming, A. (2021). Becoming active bystanders and advocated: Teaching medical students to respond to bias in the clinical setting. *Academic Medicine, 2021*(17). https://doi.org/10.15766/mep_2374-8265.11175

Zamalin, A. (2019). *Antiracism: An introduction*. New York University Press. https://www.jstor.org/stable/j.ctv12fw8v5