RECRUITMENT, RETENTION, AND INTERSECTIONALITY: RECOGNIZING THE VOICES OF HISTORICALLY MARGINALIZED AND SYSTEMICALLY OPPRESSED MEDICAL RESIDENTS

by

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The health and wellbeing of healthcare professionals has become a significant concern for the function of the healthcare system in the United States (U.S.). With a catastrophic physician shortage in healthcare and cumulative social injustices across the nation, medical schools and residency programs must prioritize the recruitment, wellbeing, diversification, and retention of physicians. The purpose of this dissertation is to increase the body of literature related to burnout and compassion fatigue related to historically marginalized and systemically oppressed residents. The six chapters in this dissertation, include a/an: (a) conceptual model of how MedFTs can influence the recruitment and retention of diverse physicians, (b) scoping review of LGBTQ+ patient and provider experiences in primary care, (c) systematic review of intersectional data related to burnout and compassion fatigue in residency, (d) methodology chapter describing the original study, (e) original research study that reports the results from a quantitative survey and phenomenological interview guide with historically marginalized/systemically oppressed residents related to burnout, compassion fatigue, discrimination, and harassment throughout their residency experience, and (f) conclusion chapter

that offers a review of the previous chapters and recommendations for residency programs in the form of a fact sheet.

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PREFACE

The desire to research burnout and compassion fatigue stemmed from professional experiences of my own and those that I witnessed in my colleagues. As a beginning family therapist, I did my internship experiences with a residency program where I worked alongside medical residents and provided therapy services to family medicine patients. It was in that time that I experienced burnout and compassion fatigue for myself, as well as saw the ramifications of burnout and compassion fatigue in my colleagues. The effects were devastating both personally and professionally. While I was hitting the end of my rope trying to manage my mental and physical health along with my work responsibilities, I saw the same thing happening to my medical resident colleagues. I saw marriages end, good patient care decline, and parents spending whole months without being able to see their children. It was then that I knew I needed to change my course, both for myself and the trajectory of my career. While I worked on getting myself the help I needed, I invested my energy into preparing myself for a career in medical education by continuing my education through a medical family therapy doctoral degree. It is there that I found my passion for provider wellness and burnout prevention, which has acted as a driving factor for me personally and professionally ever since.

Role of the Researcher

Throughout my time as a doctoral student, I realize that many beliefs, values, and biases have been confirmed while others have been questioned, all of which have helped me to reflect on my own humility and form the awareness needed to assume the role of a researcher. The following are just some of the beliefs, values, and biases I must remain aware of while functioning through my role as a researcher particularly in context of the populations and constructs of focus for my dissertation. These include my own social location (i.e., white, cis gender, bisexual, woman, non-physician, educated, middle class, English speaking, American citizen) and by beliefs about medical education and the healthcare system (e.g., mental health professional working in residency education). It is important for me to acknowledge that these beliefs and biases could influence my research with medical residents. Because of this, I recognize the ongoing need for reflexivity and self-reflection as I navigate each new phase of research. It is my privilege to hear the stories of diverse medical residents, and my hope is that through this research that I may provide a place for these residents and their experiences to be heard.

Purpose

While my personal experiences acted as a catalyst to pursue burnout and compassion in my research, my research narrowed as I looked further into the literature. Through this search, there was much research on burnout and compassion fatigue but less when looking at doctors in training, specifically medical students, residents, and fellows, and even less still when I looked at minority groups such as those identifying as a racial or ethnic minority, part of the LGBTQ+ community, or as a woman in medicine. This lack of inclusive literature led me to pursue researching provider wellness across the physician career span (i.e., medical education, residency, attending physician), specifically looking at historically marginalized and systemically oppressed providers.

Through the chapters of the dissertation, unique experiences of historically marginalized and systemically oppressed physicians are addressed. More specifically, Chapter 1 serves as an introduction into the medical education system, and the stages physicians go through as well as difficulties at each stage that disproportionately influence historically marginalized and systemically oppressed physicians. This chapter functions as a guide for non-physicians who aim to implement change in the equity, inclusion, and wellness of physicians through education and workplace contexts across their career span.

Transitioning from the stages of the physician career span in Chapter 1, Chapter 2 delivers a scoping review focused on the ways in which providers (both physicians and other medical and mental health providers) collaborate and treat their historically marginalized/systemically oppressed patients. Diversity, equity, inclusion, and wellness all play a role in patient care, and this is often absent when engaging with historically marginalized/systemically oppressed patients. Chapter 2 outlines ways providers can engage their LGBTQ+ patients with the aim of improving health outcomes. The concept of social concordance (i.e., provider and patient identifying similarly based on race, ethnicity, language, gender identity, sexual orientation, etc.) is an important finding from the scoping review. Strengths and challenges associated with social concordance are revealed in context of health outcomes for patients. While many strengths exist for patients sharing commonalities with one's provider, the direction of healthcare is not to specifically match patients with similarly identifying providers, but to recruit and retain a diverse system of healthcare providers who identify across a range of diverse social locations. Recruitment and retention of diverse medical providers not only influences direct medical care, but the richness of experience from which everyone in the healthcare system benefits.

From there, the discussion of diversity transitions into discussing the literature related to burnout and compassion fatigue of historically marginalized/systemically oppressed residents (i.e., racial/ethnic minority residents, LGBTQ+ residents, and women residents). Chapter 3 includes a systematic review of the burnout and compassion fatigue literature for historically marginalized/systemically oppressed residents. The systematic review of the literature yielded 22 articles related to historically marginalized/systemically oppressed residents' experiences of burnout. This review found that there is a lack of literature capturing the intersectional experiences of residents, and available research yields poor reliability and consistency through small samples sizes and lack of analyses related to social location. This chapter offers recommendations related to diverse residents' experiences of burnout and compassion fatigue as well as ways to improve inclusivity via data collection and analysis strategies in future research.

Based on the culmination of findings from Chapters 1-3, Chapter 4 outlines methodology utilized in Chapter 5 to further understand experiences of historically marginalized/systemically oppressed medical residents. Chapter 4 provides a two-phase approach to a quantitatively informed qualitative research methodology including a quantitative survey and a qualitative interview. Phase I, the quantitative survey, includes demographic information, direct questions about residency experiences, and validated survey measures on burnout, compassion fatigue, and discrimination. Phase II, the qualitative interview, discusses the interview guide developed from a pilot study, then outlines the phenomenological design using Colaizzi's method of descriptive inquiry for analysis. It is out of the methodology outlined in Chapter 4 that the original research contribution provided in Chapter 5 is based.

Chapter 5 provides original research in the form of a qualitative study informed by a corresponding quantitative data. The research answers the research question, "What are the relevant experiences of historically marginalized/systemically oppressed residents in their residency programs?" Five themes and 14 subthemes were found through the qualitative interviews of 20 participants including, (a) Reporting Discrimination and Harassment, (b) Additive Stress, (c) Discrimination in the Health Care System, (d) Wellness, and (e) Connection. In addition to the qualitative explanation of these themes using Colaizzi's method of descriptive inquiry, implications for further research and systemic change in residency programming are provided.

Chapter 6 provides an overview of the contributions to science grounded in the qualitative and quantitative findings from the original research study described in Chapters 4 and 5. This chapter extends also extends policy recommendations for residency programs in the form of a fact sheet. The fact sheet and corresponding narrative discusses the common concerns of historically marginalized/systemically oppressed residents, then provides simple recommendations for residency programs to address these concerns.

Conclusion

This dissertation explores the presence of diversity, inclusivity, and equity in context of medical education and residency, patient care, and a series of experiences encountered by historically marginalized/systemically oppressed medical residents including burnout, compassion fatigue, discrimination, harassment, and/or resiliency. The aim of this dissertation is to heighten awareness of the unique needs of historically marginalized/systemically oppressed residents throughout their professional careers and push the needle forward, toward a more equitable healthcare system, investing in wellness of both patients and providers.

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CHAPTER 1: MEDFT'S ROLE IN THE RECRUITMENT AND RETENTION OF DIVERSE PHYSICIANS: A CONCEPTUAL MODEL

Recruitment and retention of diverse physicians across stages of education are essential for the success of the healthcare system. Currently, Black/African American physicians at all stages of education are significantly underrepresented related to the United States (U.S.) population (13.4% U.S. population, 5% practicing physicians, 5.5% residents, and 9.4% medical students; U.S. Census Bureau, 2019; Association of American Medical Colleges [AAMC], 2018, 2020, 2021a, 2021b), similarly Hispanic/Latino/or Spanish Origin physicians are also underrepresented in all stages of education related to the U.S. Population (18.5% U.S. population, 5.8% practicing physicians, 7.5% residents, and 12% medical students; U.S. Census Bureau, 2019; AAMC, 2018, 2020, 2021a, 2021b; See Table 1). (Note: Physicians who practice independently will be considered Practicing Physicians due to the style of reporting done by the AAMC; AAMC, 2019). In addition, women make up just over half of the U.S. population (50.1%) but make up only 36.3% of practicing physicians (AAMC, 2019). Further, 5.6% of the U.S. identifies as LGBTQ+ and yet representation among medical students, residents, and practicing physicians are often neglected from recruitment or retention reports (Jones, 2021; U.S. Census Bureau, 2019; See Table 1).

Representation in healthcare is important for multiple reasons, including social concordance in patient-physician relationships (i.e., similar characteristics such as race, sex, or sexual orientation/gender identity) which influences trust and shared decision making with the potential to improve patient's quality of care (Johnson Thornton et al., 2011; Kurek et al., 2016). In addition, increased representation of diversity in healthcare has been shown to improve communication between physicians and their colleagues as well as between physicians and patients (Hughes et al., 2018; University of St. Augustine, 2021). Specifically, a diverse workforce across the healthcare system has been shown to increase the understanding of varied values and beliefs about health (University of St. Augustine, 2021). Finally, representation of diversity in the healthcare system is essential for recruitment, training, and retention of diverse medical students, residents, and practicing physicians (Garces & Mickey-Pabello, 2015). Creating a diverse and inclusive healthcare system is, in part, the responsibility of all who interact with the healthcare system.

Equity in the healthcare system is the responsibility of all who engage with the system and Medical Family Therapists (MedFTs) are uniquely situated to address systems-based disparities and inequities through their systemic training. This lens makes it possible for MedFTs to be aware of the systemic inequities related to diverse medical providers at all stages of education and practice, and act as an agent of change related to diversity in healthcare.

As the field of Medical Family Therapy (MedFT) grows, so too have the roles and positions that MedFTs hold in health care. The MedFT Healthcare Continuum (Hodgson et al., 2014; See Table 2), was constructed to highlight a series of knowledge and skills that MedFTs use related to their work in MedFT. Many MedFTs are now engaging consistently and proficiently with the highest levels of skills and knowledge (Levels 4 & 5) in roles such as teachers, supervisors, and administrators. MedFTs engaging in higher levels of the continuum have now cemented their place into healthcare systems as agents of systemic change, using their systemic lens to address inequities throughout the healthcare system. In their work, MedFTs not only attend to their own competencies (Competencies for Family Therapists Working in Healthcare Settings; American Association of Marriage and Family Therapists [AAMFT], 2018; See Table 3) but competencies related to medical students, residents and practicing physicians

(Accreditation Council for Graduate Medical Education [ACGME] Milestones; ACGME, 2021; See Table 4). It is from this foundation (i.e., ACGME Milestones; ACGME, 2021 and Competencies for Family Therapists Working in Healthcare Settings; AAMFT, 2018) that MedFTs can maximize their ability to attend to systemic issues, such as recruitment and retention of diverse physicians.

It is the intention of this brief report to (a) speak to both the history and future direction of MedFT as a field related to growth via the MedFT Healthcare Continuum (Hodgson et al., 2014); (b) discuss how the Competencies for Family Therapists Working in Healthcare Settings (AAMFT, 2018) and ACGME Milestones (ACGME, 2021) act as a foundation to strengthen the diversity and inclusion in healthcare, specifically related to recruitment and retention; (c) use fundamental theories of MedFT, like the Four World View (Peeks, 2008) to reimage how healthcare systems can push for recruitment and retention of diverse medical students, residents, and physicians; (d) push for improved recruitment and retention of diverse physicians spanning across educational and career stages of physicians through the use of a conceptual model that integrates intersectionality and the Four World View; and (e) provide examples of ways in which MedFTs can use their spheres of influence to enact change related to recruitment and retention of diverse physicians.

Medical Family Therapy: History and Future Directions

Over the past 30 years, the field of MedFT has grown from a strong base of systemically trained therapists working in healthcare settings to include other advanced roles such as funded researchers, trainers, policy makers, and administrators across various healthcare contexts (e.g., primary, secondary, and tertiary settings; McDaniel et al., 1992). While advancing into positions not previously held by MedFTs, they have continued to move the needle forward into higher level skills, as denoted via the MedFT Healthcare Continuum (Hodgson et al., 2014; See Table 2). The MedFT Healthcare Continuum spans across 5 levels of knowledge and skill for MedFTs working in healthcare settings. In the early history of MedFT, fewer professionals were engaged in the field and their ability to enact higher order change in healthcare systems was limited. As time progressed, more MedFTs have come through advanced MedFT training programs (including master's programs, institutes, and PhD programs) and taken positions such as Behavioral Health Directors or faculty members in medical schools or residencies. In these positions, MedFTs are charged with collaboration, education, training, recruitment, and retention of physicians across all stages of their training and practice (i.e., medical students, residents, and practicing physicians), making it essential for MedFTs to not only engage with their own competencies but the competencies of those with whom they are teaching and collaborating with. These shifts in knowledge and skills have activated a new era where MedFTs not only bring a systemic lens to patient care, but to education and training of providers, with inclusivity and health equity at its core.

A New Era

With more MedFTs working in faculty and director positions across various areas of physician education and collaboration, a new era of influence and systemic change has emerged in the field of medical family therapy. In 2018, a series of competencies spanning from beginner to advanced level were developed to impress the importance of clinical skills, scholarship, training/supervision, and healthcare management/policy (Competencies for Family Therapists Working in Healthcare; AAMFT, 2018; See Table 3). These competencies provide ways a guide helping MedFTs improve their competency and push forward the advancement of the field as a whole, emphasized in these competencies is attunement to cultural humility, diversity, and inclusivity.

Similarly, the Accreditation Council for Graduate Medical Education put in place the ACGME Milestones to provide core competencies for the training and practice of physicians. This initiative began in 1999, with all specialties using and reporting the ACGME Milestones in 2015. The core competencies outlined in the ACGME Milestones remain the same for each specialty, but some of the nuances of measurement and specific skills vary by specialty. The purpose of the ACGME Milestones is to set in place basic skills needed to practice medicine, from medical knowledge and patient care to systems-based care and interpersonal skills. It is through these milestones that training physicians track their competence and training programs base their education and training curriculum (ACGME, 2021; See Table 4).

it is important to know the standards set for physicians, as well as their own discipline. It is through attaining competencies that are core to each discipline that one can advocate for change in a system or organizational context. Diversity and equity are essential to not only Domain 6: Diversity of the Competencies for Family Therapists Working in Healthcare (AAMFT; 2018), but also to the ACGME Milestone Competency 1: Patient Care, Competency 2: Systems-Based Practice, and Competency 4: Interpersonal and Communication Skills. Even when not directly mentioned as part of a competency, attunement to diversity and inclusion is an essential component of practice regardless of discipline. Attending to the competencies of both MedFT and medical education or medical training allows MedFTs to engage more systemically in the healthcare system specifically involving the training of new physicians. It is through these core competencies, along with their foundational theory, that MedFTs can best advocate for systemic change.

Systems Thinking and the Four World View

As MedFTs moves into a new era, a core component of MedFT training remains consistent, a foundational lens through systems theory. Systems Theory was first introduced by von Bertalanffy (1968), with a foci including: nonsummativity (i.e., the whole is greater than the sum of the parts) and that a change in one unit would influence a change in all others. Today systems theory has been applied to healthcare systems, as seen in C.J. Peek's Four World View (Peek, 2008).

In MedFT, systems theory plays an essential role in understanding how interlocking systems influence each other in healthcare. In order to best understand the role of interlocking systems, the Four World View provides a framework to consider each world of healthcare and its importance to the healthcare system as a whole (Peek, 2008). According to Peek, the Four World View includes the clinical, operational, financial, and training/educational worlds. Each world is seen as necessary to sustain a successful healthcare system. The clinical world focuses on direct patient care and particularly on the provision of quality care for patients related to their encounter with their provider. The operational world embodies the organizational, policies and protocol, including workflow and documentation portals of the healthcare system. The operational world is essential to keep the healthcare system running as efficiently as possible, this includes things like scheduling and ordering supplies. The financial world comprises of the payment, reimbursement, and billing systems; this world ensures that providers are compensated, insurance is billed on behalf of patients, and funds to keep the healthcare systemin operation are managed ethically and accurately. Lastly, the training/education world includes the training of new professionals and delivery of continuing education for providers within healthcare systems. This includes medical school, residency, fellowships, and continuing education for practicing physicians. Without each world working together to keep the healthcare system functioning optimally, the system would collapse. MedFTs systemic training affords a lens to see all of the four worlds simultaneously, thus enhancing opportunities for patients, providers, and the healthcare system concurrently.

Diversity in Medicine Across Career Stages

It is important for MedFTs to not only be trained in systems theory and understand their own competencies and those pertaining to medical students, residents, and practicing physicians; MedFTs must also recognize how the Four Worlds (i.e., clinical, operational, financial, and training/education; Peeks, 2008) play out systemically in the lives of physicians across each stage of their career. Furthermore, MedFTs must be prepared to discern the unique needs of diverse learners. In order to best understand the experiences of diverse physicians it is important to view their experiences through a lens of intersectionality.

Intersectionality provides a guiding theory to understanding the experiences of individuals with multiple minority identities in context or contrast to those with no minority identities or with only one minority identity. The theory of intersectionality (Crenshaw, 1989) provides a lens to examine the cumulative effects of multiple marginalized identities and the way in which these experiences influence the individual. For example, prior to the introduction of intersectionality, experiences of being Black were primarily understood within the context of Black men and experiences of being women were only captured within the context of White women. In other words, gender and race were seen as mutually exclusive experiences rather than qualitatively different experiences related to multiple minority identities. This siloed perspective did not adequately capture the wholistic experiences of those who identified as Black and/or those who identified as a woman (Crenshaw, 2017).

When looking at the state of diversity in each stage of education and career for physicians, it is essential to see how intersecting identities of the physicians uniquely influences their experience in medicine. Many times, data on race does not include a break down by sex, and if there is a break down by sex and/or gender it is often viewed as binary (i.e., male and female) with no option to choose another option, further limiting the ability for the data to capture experiences of those who identify outside of binary descriptors. Keeping the lens of intersectionality in mind, the following section will discuss the stages of training from pre-medical school to practicing physicians' experiences related to representation of race/ethnicity, sex, and sexual orientation/gender identity compared to the general public, and common systemic barriers and requirements that factor into the lack of diversity among U.S. physicians.

Prior to Medical Education

In order to grasp the inequities and representation of physicians related to the general public, it is first important to look at both those who apply and attend medical school and residency as well as those who did not. It may benefit MedFTs to understand the requirements necessary to apply for medical school to gain insight into some of the reasons for inequitable representation in medical school and beyond. Students must have a bachelor's degree in a related field (e.g., premed, biology etc.) and take the Medical School Admission Test (MCAT). Prior to this, students must finish high school, take necessary admittance tests to get into a college or university, as well as attend and finance a bachelor's degree. Beyond the longstanding controversies pertaining to standardized testing, it is estimated that a bachelor's degree alone including loss of income and student loan interest is $400,000 (Hanson, 2021).

Beyond the cost of a four-year degree, pre-med majors must overcome a series of systemic barriers associated with social location and/or intersectionality to become part of the needed representativeness in medical school. Recent data suggests that first generation students (i.e., students whose parents do not hold a four-year degree or equivalent) are less likely to use university services such as healthcare, academic advising, or support services and more likely to take out greater loans while enrolled at a university (RTI International, 2019). First generation students, have a median parental income that is $50,000 dollars less than students who come from parents who have parents with college degrees. According to the Department of Education, 28% of White students are first generation college students, while 42% of Black/African American students and 48% of Hispanic/Latino/or Spanish Origin students are first generation students (Postsecondary National Policy Institute [PNIP], 2021). When considering the many complexities of starting and completing higher education, it is clear that entrance into medical school is not equitable for racial/ethnic and other minority students who desire to become physicians.

Medical Education

Medical School is a post graduate degree that provides learners with the skills necessary to becoming a physician. The typical length of medical school is four years. At the point of graduation, students will have earned their Medical Doctorate (MD) or Doctorate in Osteopathic Medicine (DO). Medical School ranges in price based on in-state or out-of-state tuition as well as private or public institution. The average price of medical school per year is $34,592 for in-state students, $58,668 for out-of-state students, and well over $50,000 per year for most private institutions. The average student debt after four years of medical school is $176,348 with 43% of medical students accumulating over $200,000 in student loans (Kaplan, N.D). When thinking of the financial cost of medical school one must also consider the price of entrance exams, standardized testing (MCAT), application fees, travel for admission interviews, cost of living, books, and equipment, and the diminished ability to hold a full or part time job.

There are currently 192 medical schools in the U.S. and for the 2020-2021 school year, 53,030 students applied to medical school and 23,105 students were accepted. Acceptance by race/ethnicity was as follows: 1.1% American Indian/Alaskan Native, 24.8% Asian, 9.4% Black/African American, 12% Hispanic/Latino/or Spanish Origin, 0.04% Native Hawaiian/Pacific Islander, 53.6% White, 3.8% Other, 4.9% Unknown, and 1.5% Non U.S. Citizen (please note that these demographics will not add to 100% because these race/ethnic categories may be one’s sole race/ethnicity or in combination with another racial/ethnic identity; AAMC, 2020).

These statistics can be better understood in context of the demographics of the U.S. general population and to other stages of physician training (U.S. Census Bureau, 2019; See Table 1). This data is encouraging as a significant increase is witnessed in Black/African American and Hispanic/Latino/or Spanish Origin students compared to the most recent diversity data for residents or practicing physicians, but clearly remains deficient in contrast to their representation in the U.S. general population. There is concern about the lack of representation for Black/African American and Hispanic/Latino/or Spanish Origin students related to the general population, even with increasing admittance into medical school, Black/African Americans make up 13.4% of the general public but only 9.4% of medical students, similarly, Hispanic/Latino/or Spanish Origin people make up 18.5 but only 12% of medical students (AAMC, 2020; U.S. Census Bureau, 2019). This leaves room for increased parity in Black/African American and Hispanic/Latino/or Spanish Origin medical students compared to the general population.

Statistics based on 2018-2019 data for sex shows women make up 50.9% of applicants to medical school, 51.6% of matriculates, but only 47.9% of graduates. This attrition is not mirrored by their male counterparts (AAMC, 2019). LGBTQ+ status was not collected until 2016 for the AAMC (Leggott, 2020) and until 2018 for the American Medical Association (AMA; AMA, 2018). In 2019, 5% of medical students identified as bisexual, 3.8% identified as gay or lesbian, and 0.7% identify as a gender than their gender assigned at birth (Leggott, 2020). Even with the push from the AAMC and AMA, any data related to LGBTQ+ medical students may or may not be accurate do to fear or stigma in reporting sexual orientation or gender identity in medical school. A Stanford University study reported that one third of sexual minority students choose not to disclose their gender identity or sexual orientation, and 40% feared discrimination if others found out about their identity. However, there are exemplars in the medical school system related to LGBTQ+ representation among medical students (White, 2015). For example, the 2019-2020 incoming class of medical students at Harvard Medical School reported admitting 15% LGBTQ+ students, indicating a shift in priorities when it comes to representation and inclusion related to LGBTQ+ individuals (American Society of Hematology [ASH], 2020). This shift reflects important systemic change in the diversity of the upcoming physician workforce, setting a standard for diversity and inclusion among other institutions, and for representation of LGBTQ+ patients who will benefit from seeing and being treated by these future physicians.

Data related to medical school attendance is essential to understanding diversity in the physician workforce, but it is also important to look at retention and graduation rates. From 1993 to 2013, the graduation rate of medical students in a four-year time frame ranged from 81.6% to 84.3% with an average graduation rate after 6 years of 95.9%. Please note that graduating in four years from medical school is not always the goal, many students take longer and complete additional training such as a master's in public health (MPH), master's in business administration (MBA), or a Ph.D. In total, the attrition rate for the last 20 years has been about 3.3% (AAMC, 2018). There were no attrition rates available by race/ethnicity, sex, or sexual orientation/gender identity.

Residency

Residency is a post medical education program that allows new physicians to give direct patient care, gain experience, and complete requirements such as board certifications needed to practice independently. Medical students interview with residencies in their final year of medical school then rank their choices based on where they would like to attend; residency programs do the same, then an algorithm is used to match residents to a program. During residency, residents often work 80 hours a week. This 80-hour cap was implemented in 2003 by the AMA to prevent burnout, physician suicide, and patient care errors (Philibert et al., 2009). Residents are often working at all hours of the day and often bump up against this hour cap. The length of residency depends on the field of practice and ranges from 3 to 7 years. During this time, residents are paid for their work with an average salary of $63,400 depending on area of the country and specialty. It is important to note that residents are required to pay toward their student loans during residency as well as their cost of living (Gooch, 2020).

There are currently 139,848 medical residents in the United States (AAMC, 2021b). In 2021, there were 42,508 applicants to residency programs and 38,106 positions in residency programs to be filled. A total of 5,915 residency programs participated in the match. Out of the 38,106 positions available, 36,179 were filled, making it a record year for residents and residency programs (National Resident Matching Program [NRMP], 2021a). Data on race/ethnicity in residency for the 2019-2020 year is as follows: 0.6% as American Indian or Alaska Native, 21.8% identify as Asian, 5.5% as Black or African American, 7.5% as Hispanic/Latino/ or Spanish Origin, 0.2% as Native Hawaiian or Other Pacific Islander, and White non-Hispanic residents make up 50.8% percent of residents (please note this does not include international students and that residents could choose more than one race; AAMC, 2021a). While there are significant increases in diversity in medical school admittance for Black/African American and Hispanic/Latino/or Spanish Origin individuals, the same is not seen in residency. In residency, American Indian/Alaskan Native, Black/African American, and Hispanic/Latino/or Spanish Origin residents make up less than half of what would be expected based on the general U.S. Population (U.S. Census Bureau, 2019). In addition, according to 2018 data, 54.4% of the total U.S. medical residents identified as men and 45.6% identified as women. The number of women residents is increasing, and in 2019 the number of women students entering medical school outnumbered men students for the first time ever, which is promising for parity in the number of women physicians in the coming years (AAMC, 2019). The number of LGBTQ+ residents is not currently reported.

While trends in medical school attendance are promising for representation in context of the U.S. general population, it will take several years before the current cohort of medical students reach residency. Unfortunately, attrition affects both medical students and residents, specifically diverse residents. While there is little research on racial and ethnic minority residents, existing research reflects higher attrition rates for minoritized residents in certain specialties (e.g., attrition rates for the ER were found as follows: White non-Hispanic 0.88%, Asian 1.11%, Hispanic/Latino 1.82%, Black 1.22%, American Indian/Alaska Native 1.21% (Lu et al., 2019)).

Practicing Physicians

As mentioned previously, the term practicing physician is used by the AAMC to describe physicians who have completed residency and are able to practice independently (AAMC, 2018). Practicing physicians encompass fellows, attendings, and physicians in private practice. Attendings are independently practicing physicians in their specialty. Fellows are physicians that have completed residency and are practicing under an attending and receiving additional training in their specialty. There are a variety of fellowship opportunities available following residency, but not all physicians choose to do a fellowship; this depends on the area of interest for the physician and what skills they are hoping to bring into their practice. According to the National Resident Matching Program (NRMP), 10,433 positions for fellowships were given to 12,925 applicants in 2021 (NRMP; 2021b).

According to the 2019 report by the AAMC, there were 936,254 practicing physicians in the U.S. Additionally the breakdown by race/ethnicity for practicing physicians includes: 0.3% American Indian/Alaskan Native; 17.15% Asian, 5% Black/African American, 5.8% Hispanic/Latino/or Spanish Origin, Native Hawaiian or Other Pacific Islander, 56% White, 0.8% Other, 1% multiple races, non-Hispanic, and 13.7% Unknown. The data for practicing physicians is limited with a large portion of practicing physicians' race/ethnicities not reported with the AAMC. The data for practicing physicians is particularly ambiguous because there is a significant amount of missing data with race/ethnicity (i.e., 13.7% did not report this identifier). Women currently (2019) only make up 36.3% of practicing physicians across specialty and career stage; this has been steadily on the rise since 2007. This is still a far cry from parity with the U.S. general population. There is even less information about the percentage of LGBTQ+ practicing physicians in the U.S. There is progress being made in recording this information at the medical school level, but no known data is available for the percentage of LGBTQ+ practicing physicians.

It is projected that the U.S. will be short 54,100 to 139,000 physicians by 2033. As with all systemic problems there are several factors that play into these estimates. First is the increase in the aging population, making the need for more physicians greater. There are many physicians who are also aging and moving toward retirement with not enough physicians-in-training to take their place. It is estimated that these shortages will likely impact lower income or rural areas who already have lower access to care (Boyle, 2020). To compound the issue of a physician shortage, are the attrition rates of women and racial/ethnic minority physicians. After six years in medicine as a practicing physician, nearly 40% of women physicians quit medicine or go part time. Contributing factors to this exodus from medicine include gender harassment, salary inequity, gender bias, and work life balance. Compared to their male counterparts, six years after completing residency: 3.6% of male physicians are not working full time compared to 22.6% of women who are physicians, this number jumps if the physician has children to 4.6% for men and 30.6% for women.

If a physician wants to leave medicine for a period of time and return years later, for example many women who are physicians who want to spend time with their children when they are young may do so, but fees and additional training are often associated with returning to medicine (ranging in cost from $7,000 to $20,000; Paturel, 2019). There is no known data for attrition rates of racial/ethnic minority physicians and LGBTQ+ physicians. Barriers for racial/ethnic minority and LGBTQ+ physician’s success in medicine include being excluded for advancement opportunities, microaggressions, being held to a higher standard or differential treatment, and psychological burden or distress (Serafini et al., 2020). Even without the data on attrition rates for racial/ethnic minority and LGBTQ+ physicians, it is clear that there are many barriers for success as an underrepresented minority in medicine.

Conceptual Model for Systemic Change

As with all systemic issues, a multilayered vision is needed to attend to recruitment and retention of diverse medical providers. This vision requires an understanding of a complex interweaving of various healthcare disciplines or specialties, levels of training, and historical experiences due to marginalization and lack of representation across a physician's career. Through the advanced skills that MedFTs have garnered (i.e., at level 4 or 5 of the MedFT-HCC), particularly in roles that engage directly with medical students, residents, and practicing physicians, MedFTs are able to co-construct and implement ways to help enhance recruitment and retention among diverse physicians. The following segment describes a conceptual model (See Figure 1) for MedFTs to consider when working in healthcare settings or when charged with addressing systemic changes needed to increase recruitment and retention of diverse physicians at each stage of development (Hodgson et al., 2014).

Prior to engaging with the stage of physician's career, the MedFT must first identify their own identity in the model by discerning where they fit on the MedFT-HCC continuum (as seen across the top of Figure 1). Recognizing their identity will assist the MedFT in determining their potential role(s) and align with others' perceived vision for the MedFTs position in the system. This identity may also influence the MedFTs skills and role in relation to recruitment and retention of physicians across their training and career spans (Hodgson et al., 2014).

Second, the MedFT must identify the potential learners they may engage with via the Physician Education Career Span, (as seen at the bottom of Figure 1). The particular position on the MedFT-HCC and Physician Education Career Span indicate time and educational level of both the MedFT and student/resident/practicing physician (ACGME, 2021; Hodgson et al., 2014). Understanding the time and educational expectations of each professional is essential to navigating systemic and sustainable changes in diversity and inclusion that best aligns to the developmental level of all involved,

Next, located in the background of the model are four squares representing the grounding theory (i.e., systemic change in healthcare) and the Four World View. It is through systemic thinking and the Four World View that the MedFT and learners across the physician's career can remain informed of the ways in which clinical, operational, financial, and training realms of healthcare are considered and sustained in context of one another. The interconnectedness of these four worlds offers a way to maintain a viable healthcare system.

The outer circle of the conceptual model represents competencies, related to physician's education and growth (i.e., the ACGME Milestones; ACGME, 2021) and the growth and ethical responsibility of the MedFT (Competencies of Family Therapists in Healthcare Settings; Hodgson et al., 2018). MedFTs must maintain and strengthen their own competencies as outlined in the Competencies of Family Therapists in Healthcare, while simultaneously being aware of the competencies of physicians in education and practice (AAMFT, 2018; ACGME, 2021). Accountability to these competencies ensures that both MedFTs and physicians across the career span recognize their duty to patients, co-providers, the healthcare system, and to accrediting bodies.

Finally, central to the model is intersectionality. As MedFTs push the needle forward on recruitment and retention of diverse physicians, it is essential to keep in mind how multiple intersecting identities qualitatively change these individuals' experiences (Crenshaw, 1988). MedFTs can attend to Domain 6 of the Competencies of Family Therapists in Healthcare by practicing cultural humility and amplifying the voices of those who’s experiences are not being heard (AAMFT 2018), while also recognizing the unique experiences that these individuals bring with them into their careers as physicians.

It is the connection of these core concepts via this conceptual model that allows MedFTs to make systemic changes related to the recruitment and retention of diverse physicians. Below are just a few specific ways that MedFTs can contribute to recruitment and retention in context of the conceptual model described above.

MedFTs as Advocates for Change

As with any systemic issue, the role of a MedFT is to appropriately intervene and engage with each component of the system while recognizing the ways in which those components interact with one another. Having awareness that there is a lack in representation among physicians or that systemic barriers to equity and diversity exist in the infrastructure of a healthcare system are not enough. MedFTs must serve as advocates for change and activate their collaborative skills into ways that can enhance diversity, inclusion, recruitment, and retention through their interface with all four worlds (Peek, 2008). It is important to note that each of the four worlds interact with each other and cannot exist independently, but for the purpose of this manuscript recommendations are made through each of the four worlds for clarity.

The clinical world offers an important window into change related to diversity and inclusion for both the patients and physicians in the healthcare system. There is a parallel process happening related to diversity for both for patients and their physicians as well as medical students and residents and their attendings/faculty. Representativeness between physician and patient (social concordance; Johnson Thornton et al., 2011; Kurek et al., 2016) has positive outcomes on patient wellness, just as representative faculty increase positive outcomes for diverse students and residents (Oladeji et al., 2018). Furthermore, medical students should be seeing this representation in their faculty who are training them, while also learning about diversity not just in types of medical diagnoses but differences that ought to be attended to with respect for race, ethnicity, sexual orientation, etc. (Boatright et al., 2021; Kang & Kaplan, 2019).

Operationally, there is much that can be done to boost equity and diversity across healthcare systems through the system's policies and procedures. As a starting point, MedFTs should take the time to review handbooks. These often exist for students and residents or in the workplace for practicing physicians. Having an eye on policy through the lens of diversity and inclusion helps to identify protocols that promote inequity in the system. Then it is essential to use one's sphere of influence to advocate for equity and accountability in the healthcare system. In many instances, a starting point is taking accountability at an institutional level of the contribution that the healthcare system has played in the perpetuation of systemic racism in healthcare (Boatright et al., 2021; Kang & Kaplan, 2019).

Financially, MedFTs can push for incorporating funds related to equity and diversity into the budget. MedFT leaders must understand that funding alone will not address recruitment and retention challenges, but use of finances for systemic change is still an essential component of systemic change. Boatright and colleagues (2021) recommend 3% of a healthcare system' budget be devoted to diversity training (e.g., implicit bias in promotion processes, diversity and equity initiatives, and health equity in the community) or programming to support students, residents, practicing physicians (e.g., scholarships, providing employee assistance programs that include benefits like childcare or mental health services by socially concordant providers, and promoting wage equality). Deep reviews of salaries for all members in the healthcare system are likely needed, particularly as minoritized providers are typically paid less for the same job than their majority counterpart or held to different standards upon review. Finances can also be used to cultivate or retain diverse talent via scholarships, outreach to high school and college students, summer programs, or professional development sabbaticals (Kang & Kaplan, 2019).

The fourth world of training and education has been embedded in some way throughout each of the three worlds above, because it is essential to the sustainability of a system. Above all, a MedFT must devote themselves to their own education on diversity, equity, and inclusion (Domain 6, Competencies for Family Therapists in Healthcare Settings; Hodgson et al., 2018). They are likely unable to effect change in a system, if they have not done their own work to recognize inequity and injustice in their own lives and spheres of influence, then worked to cultivate cultural humility in their own lives. While training and education can take place in many formal and informal ways, it is important to keep in mind that (a) the development and implementation of diversity related educational components must be a genuine reflection of the views of the instructor, healthcare team, and healthcare system as a whole both words and in action, and (b) recognize that the commitment to diversity and inclusion must be ongoing and involve all worlds of healthcare (i.e., clinical, operational, financial, and training/educational.

Conclusion

In order to address inequity in the healthcare system, specifically related to the recruitment and retention of diverse providers. MedFTs must engage at each level of the system as defined by Peeks, while also intervening through their different positions and spheres of influence they hold (Peeks, 2008). As with any system, when we engage all of the parts the change is greater and more likely to be sustained (Bertalanffy, 1968). As MedFTs continue to grow and expand their influence in the healthcare system, they must ground into the core theory, recognize the competencies for their colleagues and themselves, and recognize the role of diversity and intersectionality in creating a more equitable healthcare system.

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Table 1.

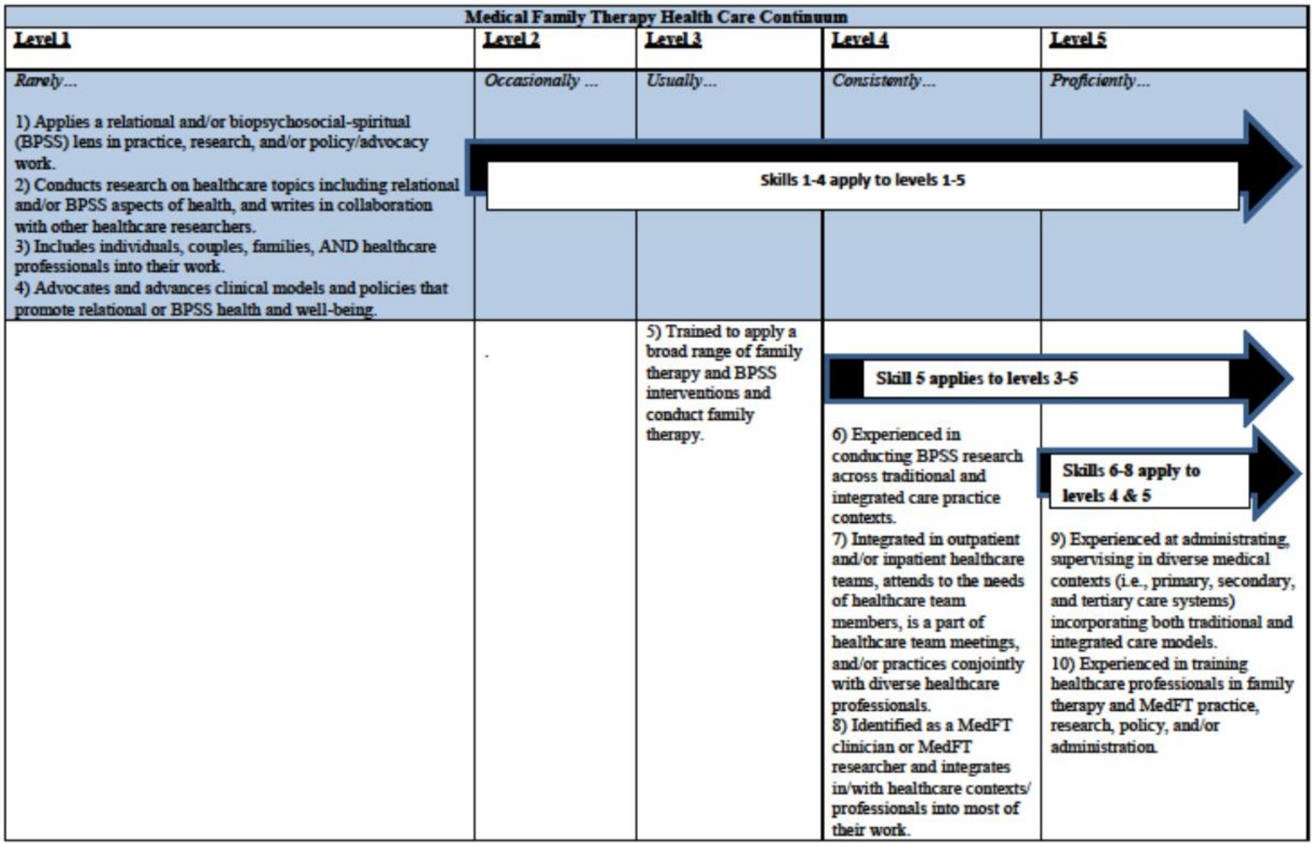
Race/Ethnicity by training level compared to U.S. general population

Race/ethnicity	Medical School[1,3,7]	Residency[3,4,5]	All Practicing Physicians[2,7]	US General Population[6,8]
American Indian/Alaskan Native	1.1%	0.6%	0.3%	1.3%
Asian	24.8%	21.8%	17.1%	5.9%
Black/African American	9.4%	5.5%	5%	13.4%
Hispanic/Latino/or Spanish Origin	12%	7.5%	5.8%	18.5%
Native Hawaiian or Other Pacific Islander	0.4%	0.2%	0.1%	0.2%
White	53.6%	50.8%	56.2%	60.3%
Other	4.9%	NR	0.8%	NR
Unknown	1.5%	NR	13.7%	NR
Gender (Woman)	47.9%	45.6%	36.3%	50.1%
LGBTQ+	Bisexual 5%; Gay/Lesbian 3.8%; Gender other than what is assigned at birth 0.7%.	NR	NR	5.6%

Note: AAMC, 2018[1]; AAMC, 2019a[2]; AAMC 2019b[3] AAMC, 2021a[4]; AAMC, 2021b[5]; Jones, 2021[6]; Leggott 2020[7]; U.S. Census Bureau, 2019[8].

Table 2.

Medical Family Therapy Continuum



Medical Family Therapy Health Care Continuum				
Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Rarely… 1) Applies a relational and/or biopsychosocial-spiritual (BPSS) lens in practice, research, and/or policy/advocacy work. 2) Conducts research on healthcare topics including relational and/or BPSS aspects of health, and writes in collaboration with other healthcare researchers. 3) Includes individuals, couples, families, AND healthcare professionals into their work. 4) Advocates and advances clinical models and policies that promote relational or BPSS health and well-being.	*Occasionally …* **Skills 1-4 apply to levels 1-5**	*Usually…*	*Consistently…*	*Proficiently…*
	.	5) Trained to apply a broad range of family therapy and BPSS interventions and conduct family therapy.	**Skill 5 applies to levels 3-5** 6) Experienced in conducting BPSS research across traditional and integrated care practice contexts. 7) Integrated in outpatient and/or inpatient healthcare teams, attends to the needs of healthcare team members, is a part of healthcare team meetings, and/or practices conjointly with diverse healthcare professionals. 8) Identified as a MedFT clinician or MedFT researcher and integrates in/with healthcare contexts/ professionals into most of their work.	**Skills 6-8 apply to levels 4 & 5** 9) Experienced at administrating, supervising in diverse medical contexts (i.e., primary, secondary, and tertiary care systems) incorporating both traditional and integrated care models. 10) Experienced in training healthcare professionals in family therapy and MedFT practice, research, policy, and/or administration.

Note: Hodgson et al., 2014.

Table 3.

Competencies for Family Therapists Working in Healthcare Settings

Domain 1: Systems	1.1 Clinical Skills 1.2 Training and Supervision 1.3 Healthcare Management and Policy 1.4 Scholarship
Domain 2: Biopsychosocial-Spiritual	2.1 Clinical Skills 2.2 Training Supervision 2.3 Healthcare Management and Policy 2.4 Scholarship
Domain 3: Collaboration	3.1 Clinical Skills 3.2 Training Supervision 3.3 Healthcare Management and Policy 3.4 Scholarship
Domain 4: Leadership	4.1 Clinical Skills 4.2 Training Supervision 4.3 Healthcare Management and Policy 4.4 Scholarship
Domain 5: Ethics	5.1 Clinical Skills 5.2 Training Supervision 5.3 Healthcare Management and Policy 5.4 Scholarship
Domain 6: Diversity	6.1 Clinical Skills 6.2 Training Supervision 6.3 Healthcare Management and Policy 6.4 Scholarship

Note: AAMFT, 2018.

Table 4.

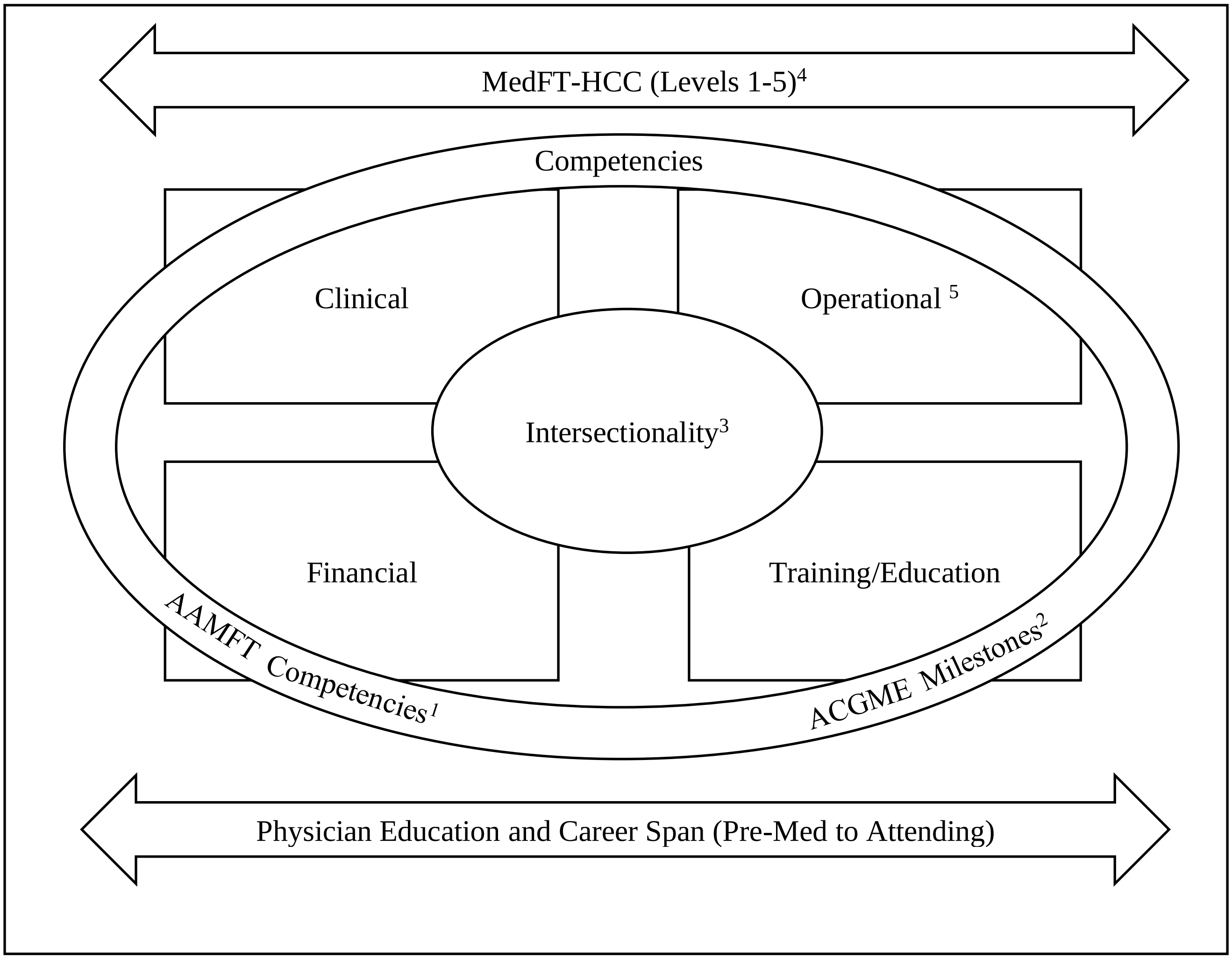
ACGME Core Competencies

Competency	Examples of Sub Competencies based on Family Medicine Milestones
Competency 1- Practice-Based Learning and Improvement	1. Patient Care of Acutely Ill Patient 2. Care of Patients with Chronic Illness 3. Health Promotion and Wellness 4. Ongoing Care of Patients with Undifferentiated Signs, Symptoms or Concerns 5. Management of Procedural Care
Competency 2- Patient Care and Procedural Skills	1. Evidence Based and Informed Practice 2. Reflective Practice and Commitment to Personal Growth
Competency 3- System-Based Practice	1. Patient Safety and Quality Improvement 2. System Navigation for Patient-Centered Care 3. Physicians Role in Health Care Systems 4. Advocacy
Competency 4- Medical Knowledge	1. Sufficient Medical Knowledge of Family Medicine 2. Critical Thinking/Decision Making
Competency 5- Interpersonal and Communication Skills	1. Patient and Family Centered Communication 2. Interprofessional and Team Communication 3. Communication within Health Care Systems
Competency 6- Professionalism	1. Professional Behavior and Ethical Principles 2. Accountability/Conscientiousness 3. Self-Awareness and Help-Seeking

Note: ACGME Milestones include six competencies and sub competencies that fall under these, based on specialty. Examples given in this table are drawn from the Family Medicine Milestones (ACGME, 2021).

Figure 1.

MedFT's Role in the Recruitment and Retention of Diverse Physicians



Note: AAMFT, 2018[1]; ACGME, 2021[2]; Crenshaw, 1988[3]; Hodgson et al., 2014[4]; Peeks, 2008[5].

CHAPTER 2: THE INFLUENCE OF PATIENT PROVIDER RELATIONSHIPS ON LGBTQ+ HEALTH OUTCOMES

According to the most recent poll by the Gallup Organization, 4.5% of the United States population identifies as LGBTQ+ (Gallup Organization, 2017). This is over 10 million LGTBQ+ people in the United States, who engage with the healthcare system (Hafeez et al., 2017; Rahman et al., 2019). Unfortunately, LGTBQ+ patients often have poorer health outcomes than their heterosexual counterparts, such as low patient retention (Grefinger et al., 2013; Rahman et al., 2019), high use of emergency services, and low use of preventative care (Smith & Turell, 2007). Further, LGTBQ+ patients have difficulty in finding trusting relationships with healthcare providers (Seaver et al., 2008). This makes the promotion of the patient-provider relationship a needed component for improving health outcomes with LGTBQ+ patients.

The patient-provider relationship is essential, but it is often overlooked when assessing a patient’s health outcomes (Robbins et al., 2019) and management of chronic conditions (Kurek et al., 2015). Looking at both the patient and the provider’s perspectives is crucial to understanding what variables emerge as differences that make a difference in their relationship and with the patient’s overall health outcomes. Unfortunately, almost no dyadic research exists looking at the patient and provider relationship from both perspectives (Schoenthaler et al., 2018), and even less still with LGTBQ+ patients in relation to their providers (Sohler et al., 2007).

The purpose of this scoping review is to call attention to the differences that make a difference in patient-provider relationships, particularly with LGTBQ+ patients and their providers. This article purports a contribution to science, as LGTBQ+ patients have poorer health outcomes compared to their heterosexual peers (Hafeez et al., 2017). Health outcomes are defined as issues of health importance to patients, providers, or key medical decision makers typically revolving around medical conditions, quality of life, and resource utilization (Velentgas et al., 2013). In particular, this article: (a) highlights the importance of the Four World View (Peek, 2008) as the theoretical foundation for attending to patient-provider relationships with this population, (b) provides a scoping review over key elements of patient-provider relationships, and (c) offers implications for future directions in clinical practice, operations and policy, financial sustainability, and training/education consistent with the Four World View and patient-provider dyadic analyses that can improve health outcomes for LGTBQ+ populations.

Theoretical Foundation

The Four World View (Peek, 2008) is a lens to see the clinical, operational, financial, and training/educational worlds of healthcare, as all are valuable and essential in the success of healthcare systems. A fundamental component of the Four World View is that without attention to all of the worlds, the system would collapse, making each of the worlds essential to maintaining a successful healthcare system. The clinical world encompasses direct patient care, the operational world embodies the organizational, policy, and protocol realms of the healthcare system, the financial world comprises of the payment, reimbursement, and billing systems, and the training/education world includes the training of new professionals and continuing education for providers within healthcare systems (Peek, 2008). When looking at the four worlds, it is important to see how the worlds interact with each other (e.g., how both clinical and operational elements together impact the patient-provider relationship) rather than viewing the worlds individually or independently of one another. It is important to note that each of the four worlds interact with each other and cannot exist independently, but for the purpose of this manuscript recommendations are made through each of the four worlds for clarity.

Clinical World

In the clinical world, the aim is to provide high quality care to patients. The clinical world includes both patients and providers, and the focus is on improving health outcomes. Providers use research, science, and ethics to manage their decision making (Peek et al., 2014), and it is clear how the patient-provider relationship is essential to the clinical world. It is through the direct patient encounters that providers maximize the patient-provider relationship and thus, health outcomes. LGTBQ+ patients have historically had negative relationships with healthcare providers due to bias (Rahman et al., 2019), lack of knowledge (Colpitts & Gahagan, 2016), and discrimination resulting in low utilization of preventative care and poor retention in healthcare (Parameshwaran et al., 2017). The relationship between patient and providers influences the patient's understanding of healthcare decisions, the desire for implementation of the decision, and finally the health outcomes that result from the encounter, making the clinical world integral to improving health outcomes for LGTBQ+ patients (Greifinger et al., 2013; Peek, 2008).

Operational World

In the operational world, the aim is to find the most efficient ways to implement practice, policy, and protocols in the healthcare system. Those who work in the operational world keep the healthcare system running smoothly and efficiently (Peek et al., 2014). It is important to involve the operational world into the conceptualization of patient-provider relationships because it controls the system in which patients and providers operate. The operational world sets appointment lengths, influences wait times, and manages the number of staff in any given system. It also sets the precedent for treatment of patients because patients engage with the operational world before stepping foot into the exam room (Peek, 2008).

An example of the influence that the operational world has on LGTBQ+ patients originates through historical discrimination in healthcare. This includes homosexuality as a mental disorder in the Diagnostic and Statistical Manual (DSM) until 1973, when it was replaced with Sexual Orientation Disturbance, and was only just completely removed from the DSM in 1987. It was also common practice for medical professionals to attempt to change sexual orientation or atypical gender presentation by means of electroconvulsive therapy, psychosurgery, psychoanalysis, and chemical castration. While these "treatments" were most common in the 1950's and 60's, remnants of this medical abuse are still recognized and legal in many states who have yet to ban conversion therapy (Eckstrand & Potter, 2017). While providers change as new generations come and go, the operational side of the healthcare system remains. While providers are the ones who used these diagnoses and interventions, it is the operations of the system that approved these terrible practices and implemented them into the healthcare system. Though in many cases these practices have ended, the influence of these historical acts has served to oppress LGTBQ+ patients into the present. Continuous implicit bias and homophobia in the healthcare system are still very present to this day (Meyer, 2003; Rahman et al., 2019). Just as the operational world had the power to implement terrible practices which led to the harm of LGTBQ+ patients, there is also the opportunity for operations to implement strategies that set the stage for positive patient-provider relationships and build trust not only with the provider but in the medical system as a whole (Peek, 2008).

Financial World

The financial world focuses on cost and value for the healthcare system. The aim is how to improve the bottom line and keep the healthcare system functioning financially, which includes insurance and how services are billed (Peek et al., 2014). Providers and patients discuss finances in some healthcare systems, but in many, the provider is separated from the financial realm, often leaving the patient to navigate the financial world without the provider's support. The financial world can be forgotten by providers because of their emphasis on quality care, but finances can be a significant barrier to care for patients including how they select their provider (Peek, 2008). LGTBQ+ patients, specifically trans patients, have unique issues with billing. Insurance billing systems often only bill for a binary gender and will typically only cover services under the prescribed gender (Knuston et al., 2018). An example of this, there is no option to bill for both a mammogram and prostate exam. Thus, transgender patients are more likely to be uninsured or underinsured- further limiting their access to care (Rahman et al, 2019). The financial world has the opportunity to engage patients and improve the patient-provider relationship through advancements in billing and insurance options. Without affordable and accessible care, it is unlikely that transgender patients will even attempt to access much needed healthcare services (Knuston et al., 2018).

Training/Education World

The training/educational world must stay active, informing new providers and existing providers on current best practices and new advancements in the field. Training is the birthplace of how providers engage with their patients. This is a big responsibility when it comes to bringing providers that have good attending skills (i.e., how doctors interact with their patients) into the healthcare system (Peek et al., 2014). The patient-provider relationship is something that is often overlooked in medical training because of the large amount of information that must be taught. Good patient care skills are the avenue for providing good healthcare and therefore must be taught in a way that is consistent with the wide variety of patients that emerging providers will interact with (Colpitts & Gahagan, 2016; Peek, 2008). There is little formal education in medical school when it comes to LGTBQ+ health (Knutson et al., 2018). Due to the lack of specialized providers in LGTBQ+ healthcare, general practice providers such as Family Medicine and Internal Medicine Primary Care Physicians, Nurse Practitioners, and Physician's Assistants are called on to provide care for LGTBQ+ populations without formal education on how to best join, assess, diagnose, and intervene with LGTBQ+ patients. Advancements in training/education have the ability to increase competency in providers and care for patients improving healthcare for the patient-provider dyad (Colpitts & Gahagan, 2016).

Much attention has been given to specific health conditions in LGTBQ+ health, such as, HIV (Greifinger et al., 2013; Vijayaraghavan et al., 2011; Woodward et al., 2019), yet LGTBQ+ patients have healthcare needs outside of sexual health education and HIV screening, intervention, and treatment. The LGTBQ+ population, just like all other patient populations, suffer chronic conditions, reproductive issues, and health conditions consistent with the process of aging (Politi et al., 2009). Yet when LGTBQ+ patients seek care for these common issues, they are met with bias and lack of knowledge that influences their care and health outcomes (Colpitts & Gahagan, 2016; Parameshwaran et al., 2017). In order to learn more about patient-provider dyadic relationships for LGTBQ+ patients, a scoping review was conducted to answer the following research question, "What are the key elements of the patient-provider relationship that lead to improved health outcomes for patients?"

Method

Below is a brief description of the search terms, search engines, and method for this scoping review. The analysis used to comprise the final articles is also provided.

Search Terms

The initial search for this scoping review included multiple variations of search terms "LGBTQ+", "Patient-Provider Relationship" (e.g., patient-physician, patient-provider, and patient-doctor) and "Dyad or Dyadic." The inclusion criteria comprised of peer reviewed journal articles published in the English language. There were no restrictions made on the date of publication. Exclusion criteria included: non-peer reviewed articles (e.g., newspapers, dissertations, and magazine articles), journal articles not provided in the English language, as well as articles that did not represent a dyadic sample. This scoping review was primarily conducted through PsycINFO and PubMed as well as reviews of the references from the articles that met criteria. Unfortunately, this search resulted in an absence in findings (*n* = 0) of dyadic research studies on LGTBQ+ patient-provider samples/relationships. Because of this, the search was expanded to include patient and provider populations that included dyadic samples.

For this search, search terms included multiple variations of the term "Patient-Provider Relationship" (e.g., patient-physician, patient-provider, and patient-doctor) and "Dyad or Dyadic." The inclusion criteria comprised of peer reviewed journal articles published in the English language. There were no restrictions made on the date of publication, but the earliest publication included from the review was published in 2004. Exclusion criteria included: non-peer reviewed articles (e.g., newspapers, dissertations, and magazine articles), journal articles not provided in the English language, as well as articles that did not represent a dyadic sample. This scoping review was primarily conducted through PsycINFO and PubMed as well as reviews of the references from the articles that met criteria.

Though this search did not follow a PRISMA search strategy, there were (*N* = 23) articles that met inclusion and exclusion criteria. Following the search, articles were divided into three themes (trust, shared decision making, and beliefs) in the context of the patient-provider relationship. These themes were uncovered through analysis of the articles to best represent the what the data on dyadic research of patient-provider relationships was indicating. Out of the 23 articles, 15 fit within one of these three themes [trust (*n* = 7), shared decision making (*n* = 5), and beliefs (*n* = 4), with one of the articles fitting within two themes].

Results

Patient-Provider Relationship

The patient-provider relationship is the interaction, communication, and relationship between patient and provider. This is the avenue that our healthcare system uses to exchange presenting concerns and services between the provider and patient (Christensen et al., 2010). "The healthcare system is an exchange of goods, and patients see healthcare services in terms of the people who deliver them" (Weng et al., 2008, p. 709). If the relationship is not strong, the care given is not going to be well received. Even though the relationship is not a tangible service that is rendered, it is a big factor in the utilization and satisfaction of health care. Research from this scoping review has identified three key elements that influence the patient-provider relationship: trust (Schoenthaler et al., 2018; Sohler et al., 2007)., shared decision making (LeBlanc et al., 2009; Perez Jolles et al., 2019), and health beliefs (Christensen et al., 2010; Weng et al., 2008), These three elements of the patient-provider relationship encompass elements of communication and social concordance and have shown significant improvements in health outcomes but only tested with non-LGTBQ+ populations (Christensen et al., 2010; LeBlanc et al., 2009; Schoenthaler et al., 2018), which is most certainly the most tragic and concerning point to highlight in this article.

Trust

To give context to this construct, trust encompasses not only the patient's trust in the provider but in the healthcare system as a whole. Trust (*n* = 7) in the provider and healthcare system can increase patient satisfaction, compliance, and retention (Street et al., 2009). Mistrust in the healthcare system is not uncommon, particularly among minorities who have faced historical injustices and discrimination in health care (e.g., electroconvulsive therapy, psychosurgery, psychoanalysis, and chemical castration for patients identifying as LGTBQ+ (Eckstrand & Potter, 2017) as well as discrimination due to the intersect of race and sexual orientation, Acree et al., 2019). Mistrust in the healthcare system was found to be more common than mistrust with a specific provider among an HIV infected cohort (Sohler et al., 2007). High levels of trust have been associated with improved medication compliance and blood pressure management (Schoenthaler et al., 2018), confirming the power of trust in the relationship no matter the history and social concordance.

A primary subtheme of trust emerged in the research around patient-provider relationships, the element of social concordance (i.e., "the similarities between patients and providers based on categories such as race, education, age, gender, language, ethnicity, sexual orientation, beliefs, decisions, and values" Cooper et al., 2004, p. 3), and it centers around the question of whether or not having a provider similar to you makes a difference in healthcare outcomes. Interestingly, there are mixed results on the role of social concordance. Some studies see better health outcomes through socially concordant patients and providers (Kurek et al., 2016; Johnson Thornton et al., 2011) and others do not (Schoenthaler et al., 2018; Sohler et al., 2007). This mix in the results begs the question, is it really social concordance that makes the difference or is it the way in which providers and patients relate to each other and trust in the relationship that matters (Kiss, 2004)? The answer to this question may shift the importance of finding socially concordant patient-provider dyads toward ways to increase trust in the provider relationship.

Even if socially concordant dyads were to have better health outcomes than discordant dyads, it would be an inefficient goal to focus on creating concordant dyads and likely perpetuate inequity across all patient-provider dyads. While having a diverse group of providers is an essential and positive direction for healthcare, it is ineffective to suggest that only concordant dyads (e.g., LGTBQ+ providers working with LGTBQ+ patients) are able to provide optimal healthcare for minority populations. Rather, it is important to understand the components of effective and safe relationships to make them a part of the patient-provider relationship no matter the level of concordance (Sohler et al., 2007). This research points to the necessity of and criterial components for trust that improve the patient-provider relationship.

Trust is essential for both patients and providers (Schoehaler et al, 2018; Sohler et al, 2007; Vijayaraghavan et al, 2011), but the role of the healthcare system can work to either support or hinder these relationships. Building trust with the medical system as a whole extends past the relationship with the provider, into the operational, financial, and training/education worlds. Meaning that a LGTBQ+ patient will know that they are safe within their healthcare system by their phone calls with the front desk, how their billing is handled, and how the employees at their healthcare center are trained. This could mean that all staff and paperwork use correct pronouns or preferred names. It also means that extra care can be taken when working with trans patients on billing their insurance. It takes all of the worlds working in unison to create trust that can result in lasting change in the healthcare system, resulting in positive health outcomes for LGTBQ+ patients.

Shared Decision Making

Shared decision making (SDM) (*n* = 5) is the "collaborative process through which the individuals and providers arrive at treatment plans that take into account the patient's needs and preferences" (Acree et al., 2019, p. 1). Patients who are active members of the treatment team have the ability to come to decisions about their health through the recommendations of their provider, as well as, what fits for them personally (or within their family/community) (DeMeester et al., 2016; Hagiwara et al., 2014). SDM allows for both the provider and the patient to work together to choose what is best for the patient, but the movement toward SDM has been slow. Higher levels of SDM have shown to have a positive effect on physical health (e.g., medication and treatment plan adherence, lower utilization of emergency services) and mental health outcomes (Hughes et al., 2018). Patients who are white, educated, and have middle or high income levels are more likely to have higher levels of SDM with their providers and this results in improved physical and mental health outcomes. Patients with lower socioeconomic status, lower education, and those with minority status are less likely to be involved in SDM with their providers, and often have poorer health outcomes (Hughes et al., 2018). This gap in SDM is common with LGTBQ+ patients and their providers (Acree et al., 2019).

Themes occurring in a qualitative study of SDM in a cohort of African American men who identified as gay or bisexual men included internalized homophobia, systematic racial bias, and provider prejudice. The intersectionality of race and sexual orientation was especially apparent when it came to decision making around the topic of anal cancer. Black gay and bisexual men are at a heightened risk for HIV and anal cancer in contrast to their white, heterosexual counterparts making relationships with their providers an important part of prevention, screening, and treatment. According to the qualitative analysis, black, gay and bisexual men reported wanting to build relationships with their providers, a sentiment shared by their providers, but the relationships were not able to be formed due to bias and lack of training/education. Unfortunately, systemic oppression and bias have created a health disparity for this population who could greatly benefit from SDM (Acree et al., 2019).

The process of SDM is shared between patients and providers, with both parts of the dyad having a role in the healthcare decision. One interesting finding highlights the importance of providers and patients both contributing to the conversation about how health decisions are made. What is interesting about this finding is that for both patients and providers, if the one party was very confident in decision should be made there was less certainty by the other party. Because of the lack of collaboration in decision making these encounters often led to low quality decisions being made (Leblanc et al., 2009). This is important when looking at health outcomes involving the dyad; education must happen so that patients have the information they need to make decisions, and providers must understand their patients' situations, resources, and desires for specific treatments (Acree et al., 2019; DeMeester et al., 2016; Leblanc et al., 2009).

Based on the articles that focused on SDM, it is clear that each of the four worlds has a role to play in SDM. First, the clinical world reflects the importance of provider investments in shared decision making with their patients. The operational world punctuates ways in which SDM must be a part of each and every patient-provider encounter, ultimately influencing the workflow within the system. SDM is reflected through the financial world when proper billing is in place so that the health system is getting compensated for the providers time. This would likely mean a shift if the financial world from quantity of patients seen to quality of patient outcomes reported. SDM training is an important means to building SDM practice; this skill is often needed through training programs and in continuing education. The role of the four worlds in relation to SDM ensures both patient and provider are best equipped with how to implement SDM into each encounter.

Beliefs

Wright, Watson, and Bell (1996) introduced health beliefs as a core aspect of holistic healthcare in their book, *Beliefs*. Since then, implementing health beliefs (*n* = 4) into practice in medical care has been seen as increasingly important. It is important for providers to understand the beliefs of their patients to choose treatment plans that best fit with their values (Wright, Watson, & Bell, 1996). It is not just the patient who has beliefs about health, nor is it just the patient's beliefs that influence care, but the provider's belief on the health of their patients also makes a difference in health outcomes (Christensen et al., 2010; Leblanc et al., 2009; Weng et al., 2008). Providers have a big responsibility in understanding and supporting the health beliefs of their patients while still offering and implementing the highest standard of care. Implementing beliefs into treatment can help providers build relationships and improve follow up care, ensuring that patients feel more confident in following a course of treatment that feels right for them (Christiansen et al., 2010).

Locus of control was a primary subtheme associated with beliefs. Locus of control is the belief that health is either within or outside of one's control (Christensen et al., 2010). According to Zulman and colleagues (2010), patients with multiple health concerns are most likely to have improved health outcomes, if patient and provider have similar priorities based on what is the most concerning condition. According to Christiansen and colleagues (2010), patients who view their locus of control the same way as the providers view the patient's locus of control, have the best health outcomes regarding their medication compliance, regardless of whether internal locus of control is high or low. Conversely, patients who have a high internal locus of control and who have providers with low locus of control beliefs about their patients have low medication compliance.

The clinical and the training/education worlds play a role when understanding and educating providers on the role of beliefs, especially when it comes to understanding and caring for a marginalized population like LGTBQ+ patients (Peek et al., 2014). Providers have power in what they believe about their patients. Understanding the role of beliefs held by the provider and what beliefs providers bring into the patient-provider relationship can improve not only the relationship, but the health outcomes of patients, as well (Christensen et al., 2010). The financial and operational worlds also play a part in how health beliefs are valued in the healthcare system (Peek et al., 2014). This includes building rapport with patients through their health beliefs or explaining billing to a patient in a way that focuses on what beliefs or outcomes they value (Christensen et al., 2010; Colpitts & Gahagan, 2016; Knuston et al., 2018). No matter what the domain, each world has a part to play in implementing health beliefs into the healthcare system to improve health outcomes for the LGTBQ+ community.

Discussion

The patient-provider relationship is the avenue that our healthcare system uses to transport and receive the care that is needed from the provider to the patient. The patient-provider relationship is the interaction, communication, and relationship that serves the patient-provider dyad (Christensen et al., 2010). There appears to be three essential components to the patient-provider relationship: (a) health beliefs (Christensen et al., 2010), (b) shared decision making (LeBlanc, O’Conner, & Legare, 2009), and (c) trust (Sohler et al., 2007). These components are empirically connected to good health outcomes (i.e., medication compliance (Christensen et al., 2010; Schoenthaler et al., 2018) and the successful management of chronic conditions (Kurek et al., 2016; Zulman et al., 2010)). As previously stated, LGTBQ+ patients have poorer health outcomes compared to their heterosexual counterparts, with many of the key deficits in their care revolving around lack of health education, utilization of healthcare services, and relationships with providers (Hafeez et al., 2017), to which the provider is the first line to improving care for LGTBQ+ patients. Therefore, it is essential to understand the patient-provider relationship as a means to improving health outcomes for LGTBQ+ patients.

Poor health outcomes for LGTBQ+ patients are a problem for patients, providers, and the healthcare system as a whole, but the ways that providers and healthcare systems are managing the needs of their LGTBQ+ patients are insufficient. Some providers prefer to take the stance where everyone seen will be treated the same way, and while the practice of neutrality can be seen as an attempt to engage without bias, it also leaves patients without the specific care they need, perhaps even exacerbating inequities. Other provider concerns include their standard ways of practicing, particularly when it came to their LGTBQ+ patients (i.e., does standardized care work for every patient), which led to the questioning of ethical implications in the care they gave. In these situations, providers must discern the unique needs of LGTBQ+ patients while also not discriminating against their patients by treating LGTBQ+ patients inequitably based on their gender or sexual orientation (Aleshire et al., 2019). Either approach results in suboptimal care for LGTBQ+ patients, further indicating the need for increased provider training when engaging with LGTBQ+ patients.

While there is an absence of dyadic research for LGTBQ+ patient-provider relationships, it is clear based on the needs of patients and providers that trusted, shared, and belief-respected relationships are essential in improving health outcomes for patients. These have shown to improve health outcomes for the general population but have not yet been studied with depth for

LGTBQ+ patients. Even though there has not been dyadic research specifically on the effectiveness of LGTBQ+ patient-provider relationships, we can infer that based on its success with the general population and the needs noted by both patients and providers that improving the patient-provider relationship is essential to addressing poor health outcomes for LGTBQ+ patients.

Implications

Dyadic research is essential to understanding how to best improve health outcomes for LGTBQ+ patients in tandem with relationships with their providers. It is important to look at the dyad as the unit of analysis (i.e., not patient or provider, but patient-provider relationship). Through this lens, a dyadic research design hones into the real ways in which patient and provider relationships are reciprocal or disjointed rather than basing the experiences of health care on one side of the story. Such a design may highlight the giving and receiving that is encountered between patients and providers and all the while working to improve the healthcare metrics that matter.

In addition to research design implications, healthcare experts that represent each of the four worlds have a responsibility to improve healthcare for LGTBQ+ patients and assist providers in strengthening patient-provider relationships. Healthcare systems can improve their practices by providing a clinical setting that is inclusive of the LGTBQ+ community. To create a more inclusive environment healthcare systems can ask for pronouns in their initial paperwork and provide examples of gender diverse couples and families in their pamphlets, office decor photos, and website graphics (Seaver et al., 2008). These are small changes that can make a big difference in how the healthcare system presents itself. Healthcare systems can work to improve the healthcare information that is accessible to patients and providers. Info-eds and fact sheets should be reflective of LGTBQ+ specific healthcare needs and outcomes. This could also include getting educational materials about the needs of LGTBQ+ patients that providers could share with patients (Colpitts & Gahagan, 2016). Training within healthcare contexts may entail bringing in experts on assessments and treatments that are indicated for LGTBQ+ patients.

Lastly, tied to findings from this review, open and safe communication between patients and providers could include further training on best practices such as building trust, shared decision making (Leblanc et al., 2009), and honoring beliefs. In some systems, this may require providers spending additional time with patients to focus on relationships during the patient encounter, allowing LGTBQ+ patients a way to interact more honestly and have more trusting relationships with their providers (Greifinger et al., 2013). This may also have a significant implication for the financial world as providers learn more from patients about any limitations associated with their insurance or prescription coverages for anticipated treatments or health concerns.

Conclusion

Improving the relationships between LGTBQ+ patients and their providers is an issue that influences not only patients and providers, but the success of the healthcare system as a whole. The dyadic literature supports the inclusion of trust, health beliefs, and shared decision making into LGTBQ+ healthcare practice and health research. The role of these constructs as well as others must remain the focus of clinical practice, operational protocols, healthcare finances, and training to ensure a better healthcare future for LGTBQ+ patients. A dyadic offers a way to maximize both accountability and equity in relationships that deserve attention and healthier outcomes.

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CHAPTER 3: INTERSECTIONAL EXPERIENCES OF BURNOUT IN RESIDENCY: A SYSTEMATIC REVIEW

Medical residents are an integral part of the healthcare system because of their unique role as both physician and learner. These professionals extend a fresh prospective to patient care and flexibility to adapt and learn new and improved ways of delivering treatment. According to 2019-2020 data, there are 139,848 residents actively practicing in the United States (U.S.; Association of American Medical Colleges (AAMC), 2021), yet the needs of medical residents differ from their colleagues (e.g., medical students, fellows, attendings). Across the broad continuum of medical training in healthcare, this stage of development brings with it the strengths of advanced learning along with the challenges of work overload, lack of control over hours worked (i.e., 80-hour work week), and insufficient financial compensation (Ishak et al., 2009). Some of these factors are potential protective factors, while others are systemic predictors for burnout (Maslach et al., 2001).

While iterations of burnout (e.g., compassion fatigue, secondary traumatic stress, vicarious trauma) have been well researched in healthcare, very little is known about the experiences of minoritized medical residents. The term “minoritized” was chosen rather than the term “minority” to reflect a, “history of structural and institutional actions that have over time limited access to and led to lack of presence” among diverse physicians based on race, ethnicity, sexual orientation, gender identity, and sex (Benitez, 2010, pg. 131). In this article, the term “minoritized” will be used to define residents who identify as a minority race, ethnicity, sexual orientation, gender identity, and/or sex. As with much of the research on physicians, research on medical residents often reflects samples of physicians with privileged identities (e.g., white, heterosexual, male (Lawrence et al., 2021)). The lack of representative samples in research (i.e., samples reflective of all physicians, including physicians of color, LGBTQ+ physicians, and women physicians) perpetuates marginalization in education and workforce systems, potentially influencing resident burnout and retention. Given the need for attention to provider burnout (Zhou et al., 2020), attrition (Lu et al., 2019), suicide (Patel et al., 2018), and errors in patient care (Fahrenkopf et al., 2008), it seems essential that more research be conducted with minoritized residents to determine the barriers and protective factors that influence their educational and workforce experiences.

The purpose of this article was to understand the literature via a systematic review on minoritized residents in regard to their experiences with burnout with a dual focus on risk and protective factors in residency. It was the intention of this review to (a) introduce a theoretical foundation to anchor this systematic review on minoritized residents' experiences, (b) provide a brief history on the importance of attending to minoritized residents, (c) detail the methodology used to complete the systematic review on minoritized residents' experiences with burnout, (d) offer results pertaining to the protective and risk factors for burnout of minoritized residents, and (e) extend recommendations for future research on burnout and protective factors for minoritized residents, including implications for residency programs to better support minoritized residents.

Theory

The intention of this systematic review was to understand the literature on burnout in residency by looking at the intersectional experiences of minoritized residents. Intersectionality was first introduced by Kimberle Crenshaw in 1989. Intersectionality provides a guiding theory to understand how the experiences of individuals with multiple minoritized identities are qualitatively different than those of their peers with only one minoritized identity or who hold privileged identities. The theory of intersectionality (Crenshaw, 1989) provides a lens to better understand and examine the cumulative effects of multiple marginalized identities and the way in which these experiences impact the individual. For example, prior to the introduction of intersectionality, experiences of being Black were primarily understood within the context of Black men and experiences of being a woman was only captured within the context of White women. In other words, gender and race were seen as mutually exclusive experiences rather than cumulative in regard to their influence on the individual or community. This siloed perspective did not adequately capture the wholistic experiences of those who identified as Black and/or those who identified as women (Crenshaw, 2017).

Though there are many marginalized identities pertinent to the lives of minoritized residents, the authors have chosen race, ethnicity, sexual orientation, gender identity, and sex as the focus of this review (Crampton & Afazali, 2021; Crenshaw, 1989, Monrouxe 2015). It is important to note that other social locations (e.g., socioeconomic status, age, ability, nationality, place of birth, primary language, citizenship, and religion to name a few) are also influential when considering intersectionality. However, given the volume of search terms needed to capture all minoritized selves, the authors chose to limit this review to only five of the commonly overlooked identities in research. For the purpose of this research, race, ethnicity, sexual orientation, gender identity, and sex will be discussed intersectionally, meaning that at least two minoritized identities (i.e., race and sex) must be included for consideration in the article (Crenshaw, 1989). Below is a literature review that shares more about the defining reasons that an intersectional lens is needed when considering the challenges and strengths of residency experiences.

Literature Review

In order to understand the intersectional experiences of minoritized residents, it is important to know how they are represented in context of U.S. residents at large. Three foci emerged through past literature that punctuated the need to conduct this systematic review: minoritized residents were underrepresented when compared to the general population (Liebschutz et al., 2006), there was inadequate inclusion of minoritized residents in research samples (Wang et al., 2020), and there were higher residency attrition rates among minoritized residents (Lu et al., 2019), which led to speculation about the role of burnout.

Minoritized Resident Representation

As previously mentioned, there are currently 139,848 medical residents in the U.S. Based on the 2019-2020 data, White non-Hispanic residents make up 50.8% percent of residents, 21.8% identify as Asian, 7.5% as Hispanic, 5.5% as Black or African American, 0.6% as American Indian or Alaska Native, and 0.2% as Native Hawaiian or Other Pacific Islander (please note this does not include international students and that residents could choose more than one race; AAMC, 2021).

According to 2018 data, 54.4% of the total U.S. medical residents identified as male and 45.6% identified as women (AAMC, 2019). The number of women residents is increasing, and in 2019 the number of women students entering medical school outnumbered men students for the first time ever, which is promising for parity in the number of women physicians in the coming years (AAMC, 2019). Even though the future is promising for women physicians, they currently only make up 35% of physicians across specialty and career stage (Lopez et al., 2020). Furthermore, LGBTQ+ residents are estimated to make up 10.07% of U.S. medical residents (Wang et al., 2020). Taken in context, these are social location demographics for the U.S.

general population: White non-Hispanic 60.3%, Hispanic/Latino (of any race) 18.5%, Black/African American 13.4%, Asian 5.9%, American Indian or Alaska Native 1.3%, Native Hawaiian or Other Pacific Islander 0.2%, LGBTQ+ 5.6%, and women 51.1% (Jones, 2021; U.S. Census Bureau, 2019).

Representation in the Research

A recent systematic review by Lawrence and colleagues (2021) was conducted with physicians at different stages in their career. This review included articles that reported on racial and ethnic minority doctors or student doctors, all in the context of burnout. Sixteen articles met their criteria, but only one article included medical residents. While there is little research on racial and ethnic minority residents, research does reflect higher attrition rates for minoritized residents (Attrition Rates: White non-Hispanic 0.88%, Asian 1.11%, Hispanic/Latino 1.82%, Black 1.22%, American Indian/Alaska Native 1.21%; Lu et al., 2019). LGBTQ+ physicians are also under researched within healthcare as a whole and especially in residency. Little is known about risk of attrition or representation among minoritized residents related to the general population (Wang et al., 2020). The lack of representation of minoritized residents in the training pipeline and in published research highlights the need to learn more about residency attrition and retention; it is possible that burnout is also an influential factor of these outcomes.

Burnout

Burnout has increasingly become an epidemic among physicians, especially medical residents (Zhou et al., 2020). Burnout is operationalized as “a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy” (Maslach et al., 2001). The implications for burnout in healthcare include negative outcomes on patient care (Ishak et al., 2009), increased medical errors (Kwah et al, 2016), and increased provider attrition (Lu et al., 2019). Burnout influences anywhere from 30 to 68% of all physicians and up to 75% of medical residents (Ishak et al., 2009; Schrijver, 2016), making it an essential component of minoritized residents' experiences. Because of the pervasiveness of burnout in residency and its associated risks, the following review of minoritized residents' experiences was centered on the experiences of burnout. This systematic review was designed to answer the following research question, *how do multiple intersecting identities influence experiences of burnout in residency*?

Method

This systematic review was conducted using the Preferred Reporting Items for the Systematic Reviews and Meta-Analyses (PRISMA; Moher et al., 2009) guidelines to research strategy and synthesis. The PRISMA framework was used for the search strategy, study selection, data extraction, and analyses (Moher et al., 2009) and article storage and extraction were done using Covidence Software (Veritas Health Innovation, 2019).

Article Search and Selection

The present search included three databases: PsycINFO, PubMed, and Scopus. These databases were chosen because of their content expertise on residency education and burnout research. The search terms used for this review included: "medical resident", medical residency", "medical intern" and "medical internship." Each of these were paired with terms related to burnout, including: "Burnout", "Caregiver Exhaustion", "Vicarious Trauma(s)", "Secondary Trauma(s)", "Secondary Traumatization(s)", "Secondary Traumatic Stress(es)", "Vicarious Traumatization", and "Compassion Fatigue".

The search was narrowed using both inclusion and exclusion criteria. Inclusion criteria included: (a) peer reviewed journal articles, (b) written in English, (c) original research or secondary data analysis, (d) study took place in the United States, (e) medical resident population, (f) minoritized resident population (e.g., race, ethnicity, sexual orientation, gender identity, and sex) and (g) some form of burnout analyses. Exclusion criteria included: (a) non-peer reviewed journal articles, (b) non-English studies, (c) non-original research (e.g., conceptual papers, systematic reviews) (d) non-United States based studies, (e) non-resident population, (f) non-minoritized population, and (g) no form of burnout analyses.

The inclusion criteria for this systematic review were focused on five social locations: race, ethnicity, sexual orientation, gender identity, and sex. In order to be included, articles had to incorporate at least one burnout analysis for at least two of these social locations. Unfortunately, there were no articles that met this inclusion criteria of having a minoritized identity related to sexual orientation or gender identity and a measure of burnout, because of this, all articles included in this review only addressed the intersectionality of sex, race, and ethnicity.

Method of Analysis

Following article extraction based on inclusion and exclusion criteria (See PRISMA in Figure 1; Moher et al., 2009), two analyses were conducted (a) a thematic organization of the key themes of the articles, and (b) the Appraisal Tool for Cross-Sectional Studies (AXIS; Downes et al., 2016) of the included articles to critically assess each article and judge the article's quality. The thematic analysis was conducted by two reviewers who read and coded each article. A third reviewer provided consensus of the final themes.

The AXIS was then applied to all of the systematic review articles. The AXIS is a 20-question appraisal to test the reliability and quality of each article. There is no known numerical scoring system for the AXIS, but to increase ease and readability of Table 2, the authors summed the qualities of reliability and validity to provide a summative score for each article (columns) and for each question of reliability (rows). Possible answers for the questions on the AXIS were yes, no, not reported, and not applicable. The answer yes indicated that the study obtains favorable qualities of reliability and validity. Two items (questions 13 and 19) were reverse scored. For question 13, “Does the response rate raise concerns about non-response bias?” The authors implemented a response rate of ≤ 70% as the rate in which articles were considered a concern for non-response bias (Bose, 2001). Questions were divided into 5 categories: introduction (question 1), method (questions 2-11), results (questions 12-16), discussion (questions 17-18), and other-including questions on disclosure of funding and ethics (questions 19-20). Two reviewers assessed each article’s quality using the AXIS, and a third reviewer provided a consensus in the event of disagreements. The full analysis of themes and AXIS is located in Table 2.

Results

Articles identified through database searches totaled (*n* = 1,381), duplicates (*n* = 116) were removed leaving (*n* = 1,265) articles for review. Title and abstract screening for relevance was completed for (*n* = 1,265) articles, (*n* = 987) articles were excluded following the title and abstract screening. A total of (*n* = 287) articles remained and were assessed for eligibility through a full text review. The full text review excluded (*n* = 145) articles, leaving (*n* = 142) articles included in the study. To further break down the included articles based on intersectional identity, out of the included (*n* = 142) articles, (*n* = 97) only mentioned sex and no other intersecting identity, (*n* = 24) mentioned race/ethnicity and sex in the demographics but had no analyses of sex and race or ethnicity and burnout. This left a final sample of (*N* = 22) articles that included analyses of burnout for sex and race and ethnicity. Because there were no articles that met this inclusion criteria of having a minoritized identity related to sexual orientation or gender identity and a measure of burnout; all articles included in this review only addressed the intersectionality of sex, race, and ethnicity.

Thematic Analysis

All 22 articles included a burnout measure, although inclusion criteria also allowed for compassion fatigue, vicarious trauma, and secondary traumatic stress to be included. Through a thematic analysis by two of the authors, three themes emerged through the literature. These themes included: *Risk Factors for Burnout* (*n* = 8), *Burnout related to Patient Care* (*n* = 5), and *Protective Factors for Burnout* (*n = 10*; note that some articles may appear in more than one theme). These themes addressed contributions to or protection from burnout, as well as how burnout directly influences patient care.

While analyses with regard to intersectionality, burnout, and minoritized residents were present across all 22 studies, intersectionality was not necessarily reflected or analyzed within each of the subthemes (see Table 1). Unfortunately, many of the articles did not include social location analyses related to the risk, protective, or patient care factors. Examples of significant findings pertaining to social location for each subtheme are reported in Table 1.

Table 2 provides a quality assessment on each of the 22 articles. The sum scores for each article (column) and for each indicator (row) offer insight into the strengths and shortcomings of both quality and reliability. In tandem, Table 1 and 2 offer a way to discern integrity in the design and findings of each article, while also determining the contributions pertaining to burnout and intersectionality for minoritized residents. For example, a well-designed study may not have resulted in significant findings on intersectionality and burnout for minoritized residents; thus, it was a well-developed study but perhaps not a contribution to research, practice, or policy. On the other hand, we questioned how valid or ethical a study is that was poorly designed or inaccurately analyzed yet showed significant findings on intersectionality and burnout for minoritized residents. Below is a description of each of the themes and subthemes found in Table 1 followed by findings associated with the quality assessment as reflected in Table 2.

Risk Factors for Burnout

When analyzing each article, there were numerous terms that stretched well beyond the operational definition for burnout (e.g., emotional exhaustion, depersonalization, and personal accomplishment; Maslach et al., 2001). These terms were consolidated into three core subthemes of *Risk Factors for Burnout* (*n* = 8), including *Mistreatment in Residency* (*n* = 2), *Prevalence of Mental Health Symptomatology* (*n* = 4), and *Career Regret* (*n* = 2).

Mistreatment in Residency. The subtheme of mistreatment in residency (*n* = 2) included experiences with discrimination, harassment, and bullying (Jackson, 2017; Sargent 2011). According to Jackson and colleagues (2017), bullying was the most common traumatic stress experience in residency (21.8%), followed by overwhelming responsibilities (21.4%) and work life balance (18.1%). While Jackson and colleagues (2017) did not speak to the intersectional identities of those who indicated bullying as their most common traumatic experience, Sargent and colleagues (2011) indicated that 27% of woman residents perceived discrimination was based on their sex. Furthermore, 37% of women residents felt that they had been ignored in the workplace because of their sex. Of the 19% percent of residents that identified as racial or ethnic minorities, 8% indicated they had experienced racial discrimination and 14% indicated that they had experienced harassment on the basis of race. These rates of discrimination and harassment were especially concerning because racial and ethnic minority respondents reported a lower sense of personal accomplishment (a known protective factor against burnout; Maslach et al., 2001). It was also concerning because women residents experienced higher rates of burnout and more severe symptomatology of burnout when compared to their male colleagues ($p < 0.0001$) (Sargent, 2011).

Prevalence of Mental Health Symptomatology. Another subtheme associated with risk factors toward burnout was experiences with mental health symptoms ($n = 4$). Because the majority of the studies included in this review are cross sectional, knowing if depression was predictive of burnout or burnout was predictive depression was not possible, however it is known that depression and burnout are often comorbid (Fahrenkoft et al., 2008).

According to Holmes and colleagues (2017), of the residents who screened positively for depression, 96% also met the criteria for burnout. In addition, residents who experienced burnout had higher scores on the Patient Health Questionnaire-9 (PHQ-9; Kroenke et al., 2001) ($T_{246} = -7.77$; $p < 0.01$). For this study, male residents had higher rates of burnout than did women residents (77% versus 63%, $X^2_2 = 6.24$, $p = 0.04$), but there were no significant differences in depression rates by sex. There were also no significant findings for depression or burnout by race or ethnicity. Lin and colleagues (2016) found that 36% of residents sampled, scored positively for at least mild depression, with 12.1% indicating moderate, and 7.5% indicating severe depression. In this study, there were no significant differences between women and men residents related to their depression or burnout scores, but there was a trend toward women residents having higher depression scores ($p = 0.06$). There were no significant differences based on race and ethnicity for depression or burnout in this study.

Fahrenkoft and colleagues (2008) measured the influence of burnout and depression on medical errors in patient encounters. Based on surveillance from an outside observer, depressed residents made six times the number of errors than non-depressed residents, and the prevalence of depression in this study was twice the level of the general population. There were no significant findings based on social location for this study. On a positive note, Michels and colleagues (2003) reported that the family medicine residents measured in this study experienced less anxiety than the control population of the standardized measure (State Trait Anxiety Inventory; STAI; Spielberger, 1983). Michels and colleagues attribute these results to the great attention given to resources and supports for the residents at this residency and positive changes in medical education related to the then recent Association of American Medical Colleges (AAMC) duty hour change (2001) which acted as protective factors to anxiety.

Career Regret. A third risk factor for residents experiencing burnout was career regret. According to Lemkau and colleagues (1988), 16% of residents stated that if they had the choice, they would not have become a physician again, and 28% were not sure if they would have chosen this career path again. In a more recent study, Dyrbye and colleagues (2018), found that career regret was present for 14% of residents, and residents with symptoms of burnout had a higher risk ratio (RR) for career regret (RR, 3.46 [95% CI, 2.83 to 4.23]). Not being Hispanic or Latino was associated with a lower risk ratio for specialty choice regret (RR, 0.59 [95% CI, 0.37 to 0.97]), meaning there was a greater risk for career regret in Hispanic or Latino residents. Dyrbye and colleagues note that more research is needed to understand why Hispanic residents may experience more career regret but speculate that discrimination or social isolation may be a factor, or that there might be substantial pressure both internal and external to excel in one's career.

Experiences of mistreatment, mental health symptomatology, and career regret act as risk factors for burnout in all residents. It is clear that more research is necessary when it comes to how each of these themes influence residents based on social location, but through the review of the literature there were significant risks to racial/ethnic minority residents and women residents when it comes to their experiences of burnout. It is important to note the toll that career regret, mental health symptomatology, and mistreatment have on residents' intersectional experiences of burnout, which may then influence the care they extend to patients.

Burnout Related to Patient Care

Quality of patient care is of the utmost importance in burnout literature because of the significant ramifications it has on the lives of patients and their families. Throughout this review, five articles identified patient care as their central theme. Patient care factors related to burnout included medical errors (Fahrenkoft et al., 2008; Kemper et al., 2020), bias (Dyrbye et al., 2019), empathy (Lafreniere et al., 2016), and quality of care (Baer et al., 2017). Kemper and colleagues (2020) found a 40% increased odds of reporting medical errors in residents experiencing burnout. As previously mentioned, Fahrenkoft and colleagues (2008) measured the influences of burnout and depression on medical errors in patient encounters. Based on surveillance from an outside observer, depressed residents made six times the number errors than non-depressed residents, but there were no significant findings related to medical errors regarding burnout. Medical errors are not the only concern related to quality of care, Baer and colleagues (2017) reported that residents with burnout were significantly ($p < .01$) more likely to report suboptimal patient care such as: not completely answering patient and family questions, ignoring social or personal factors, discharging patients to make their job more manageable, medical errors, and/or feeling guilty of how a patient was treated. There were no significant findings related to social location for any of the aforementioned studies.

Burnout not only influences patient care, but also how patients perceive their treatment based on their relationship with their physicians. Lafreniere and colleagues (2016) found no significant burnout rates by social location but found that patients of residents who scored highly on the Emotional Exhaustion subscale of burnout (one of the three measures on the Maslach Burnout Inventory; Maslach et al., 2001) gave their physicians higher patient satisfaction scores. This finding was unique because it highlights the emotional energy that residents are giving to their work and how that was both harmful to their own wellbeing but advantageous to their patient-provider relationship.

One study pertaining to burnout and patient care was conducted longitudinally with non-Black residents in the context of implicit and explicit bias toward Black patients (Dyrbye et al., 2019). Researchers found that burnout significantly influenced residents' bias toward Black patients, and that residents with burnout had greater explicit and implicit bias toward Black patients. When measured longitudinally, residents who had decreased burnout over time also had decreased explicit and implicit biases, highlighting that burnout played a role in resident bias. Otherwise stated, residents had less explicit and implicit bias when they experienced less burnout.

Patient care was compromised by burnout, but fortunately, as seen in the study by Dyrbye and colleagues (2019), burnout was not a permanent state and when experiences of burnout improved, risk factors associated with poor patient care decreased. These findings highlight the importance of managing burnout in residency for both the wellbeing of the patient and the resident. These consequential outcomes may be further influenced by protective factors for burnout.

Protective Factors for Burnout

This theme encompassed two subthemes, *Individual Qualities* (*n* = 5) and *Systemic Qualities* (*n* = 5). *Individual Qualities* such as self-efficacy, resilience, and use of coping skills served as protective factors against some of the harmful effects of burnout. In addition, *Systemic Qualities*, such as social belonging and mentorship, included factors in the healthcare system that protect against burnout.

Individual Qualities. While individual protective factors such as resilience, self-efficacy, and use of coping skills (e.g., mindfulness) were named in context of burnout, some were shown to be effective, others ineffective in protecting against burnout. Kelly-Hedrick and colleagues (2020) conducted a study to measure “flourishing” in relation to residents’ holistic wellness. In this study, the authors found that flourishing scores of residents were lower than those in previously conducted studies with the general population, which may indicate that residents have a lower ability to flourish than the general public. In addition, there were no findings in this study related to social location.

In contrast, Milam (2018) found that there was an inverse relationship between self-efficacy and emotional exhaustion (B = -0.43, p = 0.0127; one of three measures on the Maslach Burnout Inventory; Maslach et al., 2001), indicating that self-efficacy may act as a protective factor against burnout. Milam also found that women residents had rates of higher emotional exhaustion (3.82 vs 3.42) than their male counterparts and lower general psychological well-being (4.50 vs 4.72). In addition, racially minoritized residents had significantly lower levels of personal accomplishment (B = -0.28; p = 0.05; another measure on the Maslach Burnout Inventory; Maslach et al., 2001) than White residents. This finding was important because it not only highlights self-efficacy as a useful mitigator of burnout, but also describes how self-efficacy, as a protective factor, did not extend to women or minoritized residents.

Chaukos and colleagues (2017) found in their study on resilience that mindfulness and the ability to effectively use coping skills acted as protective factors against burnout, with no significant differences found for burnout or use of coping skills by sex, race, or ethnicity. Buck and colleagues (2019) found that low resilience was a predictor of burnout, amplifying the need to attend to resiliency in residency. Interestingly, Shakir and colleagues (2019), found that women neurosurgery residents experienced lower levels of resilience than their men colleagues ($p = 0.006$), and that residents with fewer social and personal stressors exhibited higher levels of resilience ($p = 0.005$). Again, amplifying the concept that though resilience and personal protective factors are important and can mitigate burnout, residents with increased stress or qualitatively different stress may have a harder time implementing these strategies.

Systemic Qualities. Individual qualities are not the only way to provide a buffer to the negative effects of burnout in residency. Systemic qualities, such as social belonging and mentorship, reflect ways that residency programs and the medical system as a whole can serve as protective factors against resident burnout. Mentorship was indicated by residents as highly important to their growth and wellbeing in residency. According to Oladeji and colleagues (2018), 95.8% of orthopedic residents indicated that mentorship played an important part in their development. This was also indicated by psychiatry residents as an important component in managing the stresses of residency (Taintor et al., 1981).

While this segment is focused on protective factors, it is important to share a caveat to the role of mentorship. Access to mentorship is not easy for many residents. Racial/ethnic minority residents were more likely to be dissatisfied with mentorship in their residencies and more likely to maintain contact with their mentors from medical school (Oladeji et al., 2018). Woman residents were more likely to pursue their own mentor in residency than to utilize the mentor assigned to them by their residency (Oladeji et al., 2018). Ultimately, there was no difference in rates of burnout based on prevalence of mentorship, but residents who experience burnout were more likely to be dissatisfied with their mentorship experience (Oladeji et al., 2018).

Another systemic quality that was protective against burnout in residency was social belonging defined as, "a basic human need to feel social connectedness or a sense of positive association with others" (Salles et al., 2018, pg. 371). Salles and colleagues (2018) found that after controlling for sex, age, and ethnicity, social belonging was a significant positive predictor of general psychological well-being ($B = 0.95$, $t = 8.18$, $p < 0.0001$). In the same study, women residents had significantly higher Emotional Exhaustion scores than male residents ($t = -2.51$, $p = 0.0131$); there were no significant differences in burnout rates by race or ethnicity.

A unique study associated with this theme stemmed from an article published by Afzal and colleagues (2010). This team used a sample from a residency in El Paso, Texas where the patient population was mostly Hispanic or Latino and Spanish speaking. The demographics of this residency sample differed from the other studies, as 54.8% of the sample comprised of Hispanic or Latino residents, 29.6% Asian or African American/Black residents, and 15.7% White non-Hispanic residents. In addition, 65.2% of residents had a primary language other than English, which was primarily Spanish. Afzal and colleagues found that White non-Hispanic residents who were born in the U.S. or Canada and only spoke English experienced higher rates of burnout to non-white and bilingual residents. This highlighted the strengths of the racially minoritized residents in the study and their sense of belonging with and comfort for the cultural dynamics (Afzal et al., 2010). Hamm and colleagues (2020) also found that Hispanic/Latino residents had significantly lower levels of Depersonalization (one of the three measures on the Maslach Burnout Inventory; Maslach et al., 2001) ($p = 0.0034$) than White non-Hispanic residents/fellows and displayed higher levels of empathy, but in this study White non-Hispanic residents made up the majority of the sample at approximately 60%, while Hispanic or Latino residents made up only 4 to 6% of the sample. What was important about these studies was that even with very different demographics, both studies identified that Hispanic or Latino residents experienced less burnout.

Individual qualities, such as resilience and self-efficacy, had mixed effectiveness at buffering burnout (Buck et al., 2019; Milam, 2018). On the other hand, social belonging and mentorship had promising implications on the wellbeing of residents (Oladeji et al., 2018; Salles et al., 2018). This makes individual and systemic protective factors important to understand in order to better support all residents, but especially minoritized residents.

While the themes that emerged from these 22 articles offer insight into the risks and protective factors associated with burnout, it was equally important to recognize the quality and reliability of each study. The following paragraph summarizes the findings from the quality assessment that is further detailed in Table 2.

Quality Assessment

The Appraisal Tool for Cross-Sectional Studies (AXIS; Downes et al., 2016) was utilized to critically assess each article and judge the article's quality. The findings that came from this assessment revealed the reliability and quality of the included studies. Overall, the studies performed well in most areas of the AXIS; however, there were several areas of the assessment where the articles fell short. When looking at the method of each article, only (n = 9) included a justification of sample size and just (n = 6) addressed categories of non-responders. When analyzing the results, only (n = 10) reported a response rate of greater than 70% and only (n = 7) provided descriptions of non-responders in the results. When framing this systematic review around intersectional identities of minoritized residents, representativeness of the population was very important. Non-representative samples (i.e., low sample sizes of a demographic) limit the capacity to conduct sophisticated analyses and generalize the findings.

In this review, there were no exclusion criteria related to baseline representativeness of the sample (i.e., there was not a minimum criterion for the representation of a social location). This decision was made in order to capture as many articles as possible. Without the criterion, response rate and identification of non-responders becomes an even more important indicator of quality and reliability. Otherwise stated, when representation was not consistent with population demographics, minoritized voices remain neglected and generalizations are put forward from findings that represent only the White population. For this review, more than half of the articles did not address representativeness of sample size or response rate, and approximately three fourths of the articles did not address non-responders; this raised concerns about the validity of the findings for the minoritized resident.

Discussion

The purpose of this review was to understand how residents with multiple intersecting identities experienced burnout within residency. This study included 22 articles with documented burnout analyses and at least two intersectional identities (i.e., race, ethnicity, sexual orientation, gender identity, and sex). Unfortunately, no articles included gender identity or sexual orientation in their burnout analyses, emphasizing the gap in the literature on LGBTQ+ residents and their experiences of burnout. These challenges and others are addressed below along with strengths and contributions to research from this systematic review. The recognition of limitations is also summarized prior to extending implications that can further future research pertaining to support, retention, and the protective factors for minoritized residents.

Challenges Denoted from Findings

It is expected that any review of an article, or in this case, completion of a systematic review will find chasms in the research. In context of this review, there are four challenges that stand out most that will be further attended to in the implications section below: (a) lack of diverse samples, (b) lack of intersectionality when collecting and analyzing data, (c) lack of clear prevalence rates on burnout for minoritized residents, and (d) lack of clear predictors of burnout with minoritized residents.

Based on the findings from this review, it was clear that researchers did not prioritize the social location representation of their samples. Convenient samples of participants with mostly privileged identities (e.g., white, male, heterosexual) demonstrated an erroneous reflection on residency and minimized the minoritized residents' representation and experience. This challenge was most glaring, in that not one study identified LGBTQ+ residents in their samples and most of the samples that included minoritized race or ethnicity reflected underrepresentation in contrast to the U.S. percentage of racially/ethnically minoritized residents and even more so when contrasted to their representation in the general population.

A second challenge that emerged from this review was the limited ways in which researchers attended to intersectionality in their design and analyses (Bauer & Scheim, 2019; Stirratt, 2008). While it was a criterion in this study for intersectionality to be represented through at least two social locations in context with analyses on burnout, over 1300 articles on burnout were eliminated based on this criterion. If researchers are collecting demographic information, it was unclear why they are not also analyzing for differences by social location in context of their hypotheses. Beyond describing their study populations, researchers must work to capture the compounding nature of multiple marginalized identities. Unfortunately, none of the studies in this review employed statistical analyses that were able to capture the complexity of what was happening for minoritized residents.

A third challenge from this review was associated with the of lack of clarity in prevalence and predictors of burnout for minoritized residents. For example, the rates of burnout for male vs. women residents differed greatly in the articles reviewed. Some articles cited that men vs. women residents had higher rates of burnout (Dyrbye et al., 2018; Milam, 2018; Salles et al., 2018), while others state that there were no differences between men vs. women residents' rates of burnout (Baer et al., 2017; Chaukos et al., 2017; Fahrenkopf et al., 2008), and still others found that men residents experience burnout at higher rates than women residents (Holmes et al., 2017; Michels et al., 2003).

This inconsistency was mirrored when looking at racial and ethnic minority rates of burnout. Many studies did not find any significant results when looking at burnout and race/ethnicity (Baer et al., 2017; Chaukos et al., 2017; Fahrenkopf et al., 2008; Holmes et al., 2017, Jackson et al., 2017; Kelly-Hendrick et al., 2020; Kemper et al., 2020; Lafreniere et al., 2016; Lemkau et al., 1988; Lin et al., 2016; Michels et al., 2003: Oladeji et al., 2018), while others reported that White non-Hispanic residents experienced significant burnout symptomatology (Afzal et al., 2010; Buck et al., 2019; Dyrbye et al., 2018; Hamm et al., 2020; Milam, 2018) and only Shakir and colleagues (2019) found that racial/ethnic minority residents had a significant burnout symptomatology, specifically for Asian or Pacific Islander residents.

Finally, there were great inconsistencies in the predictors of burnout. This may have occurred because researchers implemented different burnout measures with their samples. Thus, it was unclear the extent to which these measures are able to capture burnout for minoritized residents, specifically racial and ethnic minorities (Lawrence et al., 2021). Because of this, more research is needed to understand what burnout measures are indicated for minoritized samples and how burnout is experienced by minoritized residents.

Strengths Denoted from Findings

In light of the challenges, there were also some important strengths that emerged from our systematic review, including the use of both thematic analyses, as well as the AXIS quality review. Taken in tandem, the thematic analyses and the AXIS quality assessment provided data on the importance of attending to both the quality of the designed study, as well as contribution of the study's findings. When giving attention to intersectionality, researchers must ensure that both the data collection and design of the study are ethical and inclusive, while also including quality measures and analyses. Together this helps to make sure that participants' social locations are honored from the point of recruitment to the point of dissemination of the findings. By incorporating a thematic analysis and a quality review metric in this systematic review, we put forward a call to action for researchers to better attend to the ways in which intersectionality is addressed in their studies.

Another strength that arose from this review, was the results related to individual and systemic protective factors from burnout. The mixed results on the effectiveness of individual qualities such as self-efficacy, resilience, and coping skills for minoritized residents provides important information for both researchers and residencies alike. Individual protective factors, while contributors to the quality of life of residents, did not do enough to protect residents, specifically minoritized residents, from burnout. This finding from our systematic review puts the responsibility back on residencies and researchers to find systemic protective factors for burnout rather than blaming residents for not being "resilient enough." Systemic protective factors outlined in this review were social belonging and representative mentorship. These were two ways that residencies facilitated burnout prevention without putting the responsibility on residents to prevent their own burnout.

Limitations

There were several limitations of this systematic review that are important to note. First, was that the concept of intersectionality was not fully realized through this review. The authors chose only five social locations to focus on for this review, which in and of itself is not intersectional. Unfortunately, with constraints on feasibility and volume, the search terms were limited. Next, was a limitation on representation of multiple minoritized identities in this review. There were no inclusion criteria related to a baseline for representativeness, meaning that many of the studies did not have the power necessary to determine significance related to social location. A prior systematic review by Lawrence et al., (2021) identified only one article with a representative sample size related to burnout and race or ethnicity, unfortunately almost no articles would have met the inclusion criteria had a baseline level of representation been required.

Implications

The implications that arose from this review are many. First, research on medical residency must include response rate and categorize non-responders whenever possible. Studies on residencies are often small and lacking in significant power, but if response rates and non-responders are categorized, the voices of residents are not silenced. Second, is a call to action when it comes to discrimination, harassment, and bullying in residency. Mistreatment in residency is not a new phenomenon but it is disproportionately impacting minoritized residents and further research and intervention on the part of residencies can improve quality of life, decrease burnout and attrition, and mitigate resident suicide (Jackson, 2017; Sargent 2011).

Third, in addition to the call to action on the mistreatment of residents, more attention must be given to diverse social locations in the context of burnout (e.g., LGBTQ+, nation of origin, geographic location, primary language, ability). Fourth, implementation science and research on protective factors, including systemic interventions to mitigate burnout are needed; further research is warranted to see how residency programs can improve burnout in their residents while also implementing protective factors through the residency system (Salles et al., 2018; Oladeji et al., 2018). Fifth, to truly understand the intersectional experience of residents, statistical analyses need to go past basic analyses (e.g., descriptive analyses) to include analyses that capture the compounding nature of multiple minority identities. Sixth, it is important to gain a clearer understanding of traditional or frequently cited burnout measures to discern if they are accurately capturing burnout in minoritized residents. Further research is needed to understand if measures like the Maslach Burnout Inventory (MBI; Maslach et al., 1986) are fully capturing the experiences of minoritized residents or even further marginalizing their voices. If the MBI is not effectively measuring burnout in minoritized residents, an inclusive measure of burnout must be implemented to capture the experiences of burnout in all residents (Lawrence et al., 2001).

Conclusion

The voices and experiences of minoritized residents are important for the future of healthcare, and currently their experiences in residency are not being fully heard related to burnout. This is in part due to the lack of research and representativeness by social location in studies. It was the hope and the intent of this review that through the results, discussion, and implications provided that steps can be made to change both residency practices and research to meet the needs of all residents.

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Table 1.

Minoritized Experiences in Medical Residency (N=22)

Authors (Year)	Theme	n	Sample	Validated Measures	Results (Results related to variables of intersectionality were reported)
Risk Factors of Burnout (n = 8)					
Dyrbye et al., 2018	Career Regret	N=3,588	Sex: Male 48.9%, Female 50.9%, Other 0.2%. Race/Ethnicity: White 66.3%, Black 4.0%, East Asian 12.5%, South Asian 8.6%, American Indian or Alaskan Native 0.03%, Native Hawaiian or Pacific Islander 0.3%, Multiracial 5.2%, Unknown 3.1%, Hispanic or Latino 5.1%. Non-Hispanic or Latino 94.9%. Born in the United States 85.9%, Not born in the United States 14.1%.	MBI-2	Female sex was associated with risk ratio of symptoms of burnout (RR, 1.19 [95% CI, 1.09 to 1.29]) there was no significant differences in burnout rates by race or ethnicity. Not being Hispanic or Latino residents was associated with a lower risk ratio for specialty choice regret (RR, 0.59 [95% CI, 0.37 to 0.97]).
Fahrenkopf et al., 2008	Mental Health Symptomatology [4]Patient Care related to Burnout-Medical Errors	N=123	Sex: Male 30%, Female 70%. Race: White 66%, Non-White 44%.	MBI; HANDSTM	There were no significant differences in burnout of depression rates by sex, race, or ethnicity. Based on surveillance from an outside observer, depressed residents made six times the number of medical errors than non-depressed residents.
Homes et al., 2017	Mental Health Symptomatology	N=307	Sex: NR. Race: White 79%, Non-White 21%.	MBI-22, PHQ-9	Male residents had higher rates of burnout than did female residents (77 versus 63 %, $X^2_2 = 6.24$, $p = 0.04$). There were no significant differences in burnout rates by race or ethnicity. Residents who screened positively for depression 96% also met the criteria for burnout, and residents who experienced burnout had higher scores on the PHQ-9 ($T_{246} = -7.77$; $p < 0.01$).

Jackson et al., 2017	Mistreatment in Residency	N=582; PTSD+ (n=127); PTSD- (n=455)	PTSD+: Sex: Male 44%, Female 56%. Race/Ethnicity: African American 2.5%, Asian 14.2%, White non-Hispanic 73.3%, Hispanic 2.5%, Other 7.5%. PTSD-: Sex: Male 52.3%, Female 47.7%. Race/Ethnicity: African American 3.7%, Asian 12.8%, White non-Hispanic 75.1%, Hispanic 5.5%, Other 3%.	PC-PTSD, MBI-22	There were no significant differences in burnout rates by sex, race, or ethnicity. While not significant, female residents had higher rates of PTSD than male residents.
Lemkau et al., 1988	Career Regret	N=67	Sex: Male 79%, Female 21%. Race: White 88%, Other 12%.	MBI, MCMI, MBTI	There were no significant differences in burnout rates by sex, race, or ethnicity. There was a trend towards higher BDI in female residents ($p = 0.06$). There was no significant difference in sex related to Emotional Intelligence.
Lin et al., 2016	Mental Health Symptomatology	N=73	Sex: Male 57.5%, Female 42.5%. Race/Ethnicity: White 50.7%, Black 1.4%, Hispanic 4.1%, Asian/Pacific Islander 32.9%, Mixed Race 5.5%, Unknown 5.5%.	BDF-SF, MBI-22; PGWBS, REIQue	There were no significant differences in burnout rates by sex, race, or ethnicity. 36% of residents sampled scored positively for at least mild depression, with 12.1% indicating moderate, and 7.5% indicating severe depression.
Michels et al., 2003	Mental Health Symptomatology	N=350	Sex: Male 68%, Female 32%. Race/Ethnicity: White non-Hispanic 88.6%, African American 5.1%, Hispanic 0.9%, Asian 3.1%, Other 2.3%.	BDI, STAXi, STAI, POMS, MBI, Hassles Scale	Male residents had significantly higher DP scores than female residents (M=9.55 vs M=7.19, $p < .002$), as did White non-Hispanic residents vs. Non-White non-Hispanic residents (M=9.32 vs. M=4.91, $p < .0001$).
Sargent et al., 2011	Mistreatment in Residency	Residents (n=384) Faculty (n=264)	Resident: Male 88%; Female 12%. Combined Race/Ethnicity for Residents and Faculty: White non-Hispanic 85%, Asian 8%; Hispanic 2%; African American 1.5%; Native American 0.5%; Unspecified 3%.	MBI-22, R-DAS; GHQ	Female respondents (residents and faculty) had significantly higher burnout scores than male respondents ($p < 0.0001$). Racial minority residents scored lower on the PA ($p < 0.05$) than white residents.

					Female residents showed more psychological distress ($p < 0.0006$) than male residents. 27% of female residents and 45% of female faculty perceived sexual discrimination, and 37% of female residents and 50% of female faculty perceived that they had been ignored in the workplace because of their sex. 19% of residents and 9% of faculty respondents identified themselves as racial minorities. Racial minority residents scored lower on the PA ($p < 0.05$). 14% of minority residents and 8% of minority faculty perceived racial harassment. 8% residents and 17% of minority faculty felt that they had been subjected to racial discrimination. Respondents who perceived problems due to racial issues showed a lowered sense of PA on the Maslach Burnout Inventory.
Patient Care related to Burnout (n = 5)					
Baer et al., 2017	Medical Errors	N=258	Sex: Male 21.1%, Female 79.9%. Race: White 82.7%, African American 2%, Other 15.3%. Ethnicity: Hispanic 3.5%, Non-Hispanic 78.9%.	MBI-2	There were no significant differences in burnout rates by sex, race, or ethnicity. Residents with burnout are significantly ($p < .01$) more likely to report suboptimal patient care related to medical errors
Dyrbye et al., 2019	Bias	N=3392	Sex: Male 49.9%, Female 49.6% Other 0.2%, Missing 0.3%. Race[1]: East Asian 13.1%, South Asian 9.4%, White 69.6%, Multiracial 4.1%, Other 3.7%. Ethnicity: Hispanic/Latino 5%, Non-Hispanic/Latino 94.4%[2], Missing data 0.6%	MBI-2, IAT, FT, PROMIS	Resident physicians who had at least 1 symptom of burnout had lower FT scores toward black people compared with those without symptoms of burnout (75.9 [21.9] vs 79.5 [20.1]; difference, –3.6; 95% CI, –5.0 to –2.2; $P < .001$). Resident physicians with depressive symptoms also had lower FT scores toward black people (74.9 [22.2] vs 80.0 [19.8]; difference, –5.0; 95% CI, –6.5 to –3.6; $P < .001$). Recovery from burnout (one year later) was associated with the greatest reduction in explicit bias toward black people.
Kemper et al., 2020	Medical Errors	N=100; 2016: Not-Burned out (n=44); Burned out (n=56). 2017: Not-Burned out (n=46); Burned out (n=54). 2018: Not-Burned out (n=46);	Sex: 2016: Male 28%, Female 72%; 2017: Not Burned out: Male 29%, Female 71%, Burned out: Male 27%, Female 73%; 2018: Not Burned out: Male 29%, Female 72%, Burned out: Male 26%, Female 74%. Race/Ethnicity: 2016: Not Burned out: African American 3%, Asian American 17%, White non-Hispanic 69%, Hispanic/Latino 6%, Other 5%, Burned out: African	MBI-22, PROMIS, EPS, PSS CAMS-R, BRS, Neff;s 12 Item Self Compassion Measure, CCC, DES	There were no significant differences in burnout rates by sex, race, or ethnicity and there were 40% increased odds of reporting a medical error in residents experiencing burnout

		Burned out (n=54).	American 3%, Asian American 15%, White non-Hispanic 72%, Hispanic/Latino 4%, Other 6%; 2017: Not Burned out: African American 3%, Asian American 15%, White non-Hispanic 73%, Hispanic/Latino 4%, Other 5%, Burned out: African American 3%, Asian American 14%, White non-Hispanic 75%, Hispanic/Latino 4%, Other 4%; 2018: Not Burned out: African American 4%, Asian American 16%, White non-Hispanic 70%, Hispanic/Latino 5%, Other 4%, Burned out: African American 4%, Asian American 17%, White non-Hispanic 73%, Hispanic/Latino 4%, Other 4%.		
Lafreniere et al., 2016	Empathy	Residents N=44; Patients N=244	Resident: Sex: Male 43%, Female 57%. Race/Ethnicity: White 51%, Asian 30%, Black 12%, Hispanic 7%.	CARE, PEI, MBI-22	There were no significant differences in burnout rates by sex, race, or ethnicity. Higher EE in the resident was perceived by the patient as more enabling and more empathetic.
Protective factors of Burnout (n = 10)					
Afzal et al., 2010	Systemic Qualities	N=115	Sex: Male 58.3%, Female 41.7%. Race/Ethnicity: White non-Hispanic 15.7%, Asian or African 29.6%; Hispanic 54.8%. Raised in: USA/Canada 27.8%, Asia, Europe, Africa 30.4%, Latin American 41.7%.	MBI-22	White residents had higher EE (POR = 2.91; *p* = 0.004), DP (POR = 4.70; *p* < 0.0001), and PA (POR 0.29; *p* = 0.3). No significant, positive burnout rate for non-White residents. There were no significant differences in burnout by sex.

Buck et al., 2019	Individual Qualities	N=295; Resident (n=195); Faculty Member (n=116); Community Physician (n=42)	Sex: Male 48.6%, Female 52.9%. Race/Ethnicity: Non-Hispanic White 51.5%, Asian 18.5%, Hispanic 17.9%, African American 4.8%, Mixed Ethnicity 4.5%, Other 2.2%, Native American .6%.	MBI-22, BRS, PCPS, PCPAAQ	White non-Hispanic race was a significant predictor of DP (*p* = .001) and EE (*p* = .006). There were not significant differences in burnout based on sex. Psychological flexibility was the only significant predictor of PA, and there were no significant predictors if resilience.
Chaukos et al., 2017	Individual Qualities	N=68	Sex: Male (n=27), Female (n=39), Undisclosed (n=2). Race/Ethnicity: White (n=45), Black (n=5), Asian (n=18), Hispanic (n=18).	MBI-22, PSS-10, PHQ-9, FACIT, PSWQ, LOT-R, SEQS, IRI-PT, MOCS-A, CAMS-R	There were no significant differences in burnout rates by sex, race, or ethnicity. There was an inverse relationship between burnout and mindfulness.
Hamm et al., 2020[3]	Systemic Qualities	N=930	Millennial: Sex: Male 54.9%, Female 45.1%. Race/Ethnicity: White non-Hispanic 60.4%, African American Asian 30.9%, Hispanic/Latino 4.1%, Other Race 1.1%. Generation X: Sex Male 69.5%, Female 30.5%. Race/Ethnicity: White non-Hispanic 64.7%, African American 4.9%, Asian 23.9%, Hispanic/Latino 6%, Other Race .54%.	MBI-22; JSPE	Hispanic/Latino residents/fellows had significantly lower levels of DP (*p* = 0.0034) than White non-Hispanic residents/fellows. There were no significant differences in burnout rates by sex. In the adjusted model, empathy was significantly associated with race ($p < 0.0001$). Relative to White non-Hispanic trainees, Hispanic/Latino race trainees had higher empathy
Kelly-Hedrick et al., 2020	Individual Qualities	N=92	Sex: Male 42%, Female 58%. Race: White 58%, Non-White 42%.	FI, SFI, MBI-2, IRI	There were no significant differences in burnout rates by sex, race, or ethnicity.
Milam et al., 2018	Individual Qualities	N=179	Sex: Male 63.13%, Female 36.87%. Race/Ethnicity: White 45.71%, Black/African American 4.57%, Hispanic/Latino 6.29%,	MBI-22, Self-Efficacy Scale, PGWBS	Non-White residents had significantly lower levels of PA (B = -0.28; *p* = 0.05) than White Residents. There are statistically significant differences between women and men in emotional exhaustion (t=-2.19, df=177, *p*=0.0299)

			Asian/Pacific Islander 32.57%, Middle Eastern 5.71%, Mixed Race 5.14%. Missing Race/Ethnicity (n=4).		and general psychological well-being (t=2.05, df=177, *p*=0.0416) such that women had higher emotional exhaustion (3.82 vs 3.42) and lower general psychological well-being (4.50 vs 4.72). There was inverse relationship between self-efficacy and emotional exhaustion (B = -0.43, *p* = 0.0127), indicating that self-efficacy may act as a protective factor against burnout
Oladeji et al., 2018	Systemic Qualities	N=243	Sex: Male 78.1%, Female 21.9%. Race/Ethnicity: White 80.2%, Black 3.7%, Asian 10.3%, Other 5.8%.	MBI-2	There were no significant differences in burnout rates by sex, race, or ethnicity. Non-white residents are significantly more likely to be dissatisfied with their mentorship (42.4% vs. 27.8%; p = 0.136) than white residents, and female residents are significantly more likely to pursue mentorship (75.9 vs. 57.1%; *p* = 0.086) than male residents.
Salles et al., 2018	Systemic Qualities	N=146	Sex: Male 58%, Female 42%. Race/Ethnicity: White non-Hispanic: 55%, African American 5.3%; Hispanic/Latino 6.5%; Asian/Pacific Islander 26%; Middle Eastern 3.6%, Mixed Race 3%, Unknown 0.6%.	PGWBS; Belonging Scale; MBI-22	Female residents had significantly higher EE scores than male residents (t = -2.51, *p* = 0.0131). There were no significant differences in burnout rates by race/ethnicity. Controlling for gender, age, ethnicity, and year, regression analyses found that belonging was a significant positive predictor of general psychological well-being (B = 0.95, t = 8.18, *p* < 0.0001). Also, there was a correlation between being Mixed Race and wanting to leave residency (*p* = 0.0186) but the sample was very small.
Shakir et al., 2019	Individual Qualities	N=427	Sex: Male 75.9%; Female 23.2; Other 0.94%. Race/Ethnicity: White non-Hispanic/White 69.1%, Hispanic/Latino 3.1%; African American/Black 5.3%; Asian/Pacific Islander 14.1%; Other 8.4%.	aMBI; CDRS; SGS	There were association between sex and EE (*p* = 0.011) and sex and resilience (*p* = 0.005). Asian or Pacific Islander Residents had the highest level of DP compared with other races/ethnicities (*p* = 0.017).
Taintor et al., 1981	Systemic Qualities	N=531	Sex: Male 82%, Female 18%. Ethnicity: Jewish 28.5%, Black 1%, Northern European 62.5%, Southern European 8%. Nationality: American 77.5%, Asian 8%; Other 14.5%.	No validated Measures	There were no significant differences in burnout rates by sex, race, or ethnicity.

[1] Only non-Black participants were included in this sample.
[2] Personal Communication with Author (4/1/21) sample size error in original article, correct sample size reflected in table.
[3] Includes fellows in resident data.
[4] Fahrenkopf et al., 2008 is included in both Risk Factors for Burnout and Patient Care related to Burnout themes.
*Demographic language is used as represented in the original study; however all instances where Caucasian was used was replaced by White non-Hispanic.

NOTE: aMBI=Abbreviated Maslach Burnout Inventory (9 questions); BDI=The Beck Depression Inventory; BDI-SF=Beck Depression Inventory-Short Form; BRS=Brief Resilience Scale; CAMS-R=Cognitive and Affective Mindfulness Scale Revised; CARE=Consultation and Relational; CCC=Confidence in Providing Compassionate Care Scale; CDRS=Connor Davidson Resiliency Scale; DES=Davis Empathy Scale; DP=Depersonalization; EE=Emotional Exhaustion; EI=Emotional Intelligence; ESS=Epworth Sleepiness Scale; FT=Feelings Thermometer; FACIT=Functional Assessment of Chronic Illness Therapy–Fatigue Scale; FI=Flourish Index; GHQ=General Psychological Health Questionnaire; HANDSTM=Harvard National Depression Screening Day Scale; IAT=Implicit Association Test; IRI=Interpersonal Reactivity Index; IRI-PT=Interpersonal Reactivity Index Perspective Taking; JSPE=Jefferson Scale of Physician Empathy; LOT-R=Revised Life Orientation Test; MBI-22=Maslach Burnout Inventory-Twenty-two item; MBI-2=Brief Maslach Burnout Inventory-2 item; MBTI=Myers Briggs Type Inventory; MCMI=Million Clinical Multiaxial Inventory; MOCS-A=Measure of Current Status-Part A; NR=Not reported; PA=Personal Accomplishment; PCPAAQ=Primary Care Provider Acceptance and Action Questionnaire; PCPS=Primary Care Provider Stress Checklist; PC-PTSD=Primary Care PTSD Screen; PEI=Patient Enablement Instrument; PGWBS=Psychological General Well-Being Index; PHQ-9=Patient Health Questionnaire; POMS=The Profile of Mood States; PROMIS=Patient-Reported Outcomes Measurement Information System; PSS=10=Perceived Stress Scale; PSWQ=Penn State Worry Questionnaire; PTSD+=Positive PTSD; PTSD-=Negative PTSD; RAS=Relational Assessment Scale; R-DAS=Revised Dyadic Adjustment Scale; SEQS=Self- Efficacy Questionnaire Scale; SFI=Secure Flourish Index; SGS=Short Grit Scale; STAXI=State Trait Anger Expression Inventory; STAI=State–Trait Anxiety Inventory; TEIQue=Trait Emotional Intelligence Questionnaire.

Table 2.

Appraisal Tool for Cross Sectional Studies (AXIS): Quality Assessment for the reliability and validity of included studies

Question	Afazal et al., 2010	Baer et al., 2017	Buck et al., 2019	Chaukos et al., 2017	Dyrbye et al., 2018*	Dyrbye et al., 2019*	Fahrenkopf et al., 2008	Hamm et al., 2020	Homes et al., 2017	Jackson et al., 2017	Kelly-Hedrick et al., 2020	Kemper et al., 2020*	Lafreniere et al., 2016	Lemkau et al., 1988	Lin et al., 2016*	Michels et al., 2003	Milam et al., 2018	Oladeji et al., 2018	Salles et al., 2018	Sargent et al., 2011	Shakir et al., 2019*	Taintor et al., 1981	Total (out of 22)
Introduction																							
Were the aims/objectives of the study clear?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	21
Method																							
Was the study design appropriate for stated aim(s)?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	21
Was the sample size justified?	Y	N	N	Y	Y	Y	N	Y	N	N	Y	N	NA[2]	N	N	Y	N	N	N	Y	N	N	9
Was the target reference population clearly defined?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Was the selection process likely to select subjects/participants that were representative the target/reference population under investigation?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Were measures undertaken to address the categories non-responders?	N	N	N	N	Y	Y	Y	N	N	N	N	N	NA[2]	N	N	Y	N	N	N	N	N	Y	6
Were the risk factor and outcome variables measured appropriate to the aims of the study?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Were risk factor and outcome variables measured correctly using instruments/measurements that have	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22

been trialed, piloted, or published previously?																						
Is it clear what was used to determined statistical significance and/or precision estimates?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Were the methods sufficiently described to enable them to be repeated?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Results																							
Were the basic data adequately described?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Does the response rate raise concerns about non-response bias? (>70%)	N	Y	NR	N	N	N	Y	N	Y	Y	N	Y	N	N	Y	N	N	NR	Y	NR	Y	Y	10
If appropriate, was information about non-responders described?	N	Y	N	N	Y	Y	Y	N	N	N	N	N	NA[2]	N	N	Y	N	NA	N	NA	N	Y	7
Were the results internally consistent?	Y	N	Y	Y	N[1]	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	20
Were the results presented for all the analyses described in the methods?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Discussion																							
Were the authors' discussions and conclusions justified by the results?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	22
Were the limitations of the study discussed?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	N	19
Other																							
Were there any funding sources or conflicts of interest that many affect the authors' interpretation of the results?	N	N	N	N	N	N	N	N	N	N	N	N	N	NR	N	N	N	N	N	N	N	NR	20
Was ethical approval or consent of participants attained?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	Y	Y	Y	NR	N	NR	18
Total (out of 20)	18	16	16	18	20	20	18	18	16	16	18	16	20	14	16	20	17	16	16	13	15	16	

Note: The Appraisal Tool for Cross Sectional Studies (AXIS) was not designed to be summative in nature but to increase ease and readability of the table, the authors summed the favorable qualities of reliability and validity to provide a summative score for by article (down) and by question of reliability (across). The answer yes indicates favorable reliability while no, NA, or NR indicate less favorable reliability in design. Two questions are reverse scored, and these rows have been highlighted. Any exceptions to this scoring system will be indicated in the subscript following the table.

(NR = Not Reported; NA = Not Applicable)

[1] Personal communication with author (communication noted in Table 1)

[2] 100% response rate (a favorable sign of reliability)

*Longitudinal studies (response rate used for this assessment was the initial response rate).

CHAPTER 4: METHOD

Burnout prevention has been influential in healthcare for many years, because of the negative impact of burnout on patient care (Ishak et al., 2009), increased medical errors (Kwah et al., 2016), and increased provider attrition (Lu et al., 2019). Burnout has been defined as a “a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy” (Maslach et al., 2001, p. 399). Burnout has impacted anywhere from 30 to 68% of all physicians and up to 75% of residents (Ishak et al., 2009). In contrast, compassion fatigue has been broadly defined as including emotional, physical, and spiritual distress for those providing care to another. It has been associated with caregiving for people who have experienced significant emotional or physical pain and suffering (Compassion Fatigue Awareness Project, 2021). Burnout and compassion fatigue have not only led to attrition, medical errors, and gaps in patient care, but have also been linked to physician suicide (Ishak et al., 2009). Researchers have revealed that physicians are at an increased risk for completing suicide (i.e., 28-40 per 100,000 compared to 12.3 per 100,000 in the general public; Patel et al., 2018). In particular, women physician’s risk for suicide has been documented at 2.27 times higher than the general public and 1.41 times higher than their male counterparts (Patel et al., 2018).

Historically Marginalized/Systemically Oppressed Residents’ Experiences

Burnout and compassion fatigue has become a particularly important concern when it comes to the health and wellbeing of medical residents. Residents have been particularly at risk of developing burnout because of their unique position, as both learners and providers, in the healthcare system (Ishak et al., 2009). Burnout in residency has been thoroughly researched (Rodriques et al., 2018, Zhou et al., 2020) because of its great influence on the health and wellbeing of the next generation of medical providers. Unfortunately, there has been little research conducted on historically marginalized/systemically oppressed residents, particularly related to burnout and compassion fatigue in residency (Lawrence et al., 2021). To give context, historically marginalized/systemically oppressed residents are underrepresented in medicine compared to the general public (Black or African American: 13.4% U.S. population, 5.5% residents; Hispanic/Latino/Spanish Origin 18.5% U.S. population, 7.5% residents; women: 50.1% U.S. population, 45.1% residents (U.S. Census Bureau, 2019; AAMC, 2018, 2020). In addition, these residents have higher rates of attrition compared to heterosexual cis gender white male residents (Lopez et al., 2020) and are more likely to experience sexual harassment/discrimination during residency (Sargent et al., 2011). According to a recent study by Dyrbye and colleagues (2019), discrimination (including implicit and explicit racism) in residency was found to be associated with symptoms of burnout (Dyrbye et al., 2019). While burnout and compassion fatigue were a pervasive problem in the healthcare system, the prevalence of burnout and compassion fatigue in historically marginalized/ systemically oppressed residents is particularly concerning.

Theoretical Foundation

To best comprehend the experiences of historically marginalized/systemically oppressed residents, it was helpful to understand the compounding nature of the stresses that individuals experience when identifying with multiple minority identities. Kimberly Crenshaw introduced intersectionality in 1989 as a means to discuss the experiences of Black women. Prior to the introduction of intersectionality, experiences of being Black were primarily understood within the context of Black men, and experiences of being a woman were only captured within the context of White women. In other words, gender and race were seen as mutually exclusive experiences rather than cumulative in regard to their impact on the individual or community. This siloed perspective has not adequately captured the wholistic experiences of Black women. Intersectionality gave a voice to the individuals experiencing multiple marginalized identities and how these experiences were qualitatively different than those of their peers with only one marginalized identity. The theory of intersectionality (Crenshaw, 1989) has provided a lens to better understand and examine the cumulative effects of multiple marginalized identities and the way in which these experiences impact the individual, and as such serves as the theoretical foundation for the proposed research study.

Seeking Clarity

It was the intention of this study center the voices of historically marginalized/systemically oppressed residents in regard to their experiences with burnout, compassion fatigue, and discrimination/harassment during residency. This was important because the current research on residency experiences has centered on the experience of historically privileged/systematically advantaged residents (i.e., white, cis gendered, heterosexual men), and even the terms compassion fatigue and burnout have been historically used to define the experience of this privileged/advantaged population, while the sample sizes and voices of historically marginalized/systemically oppressed residents have not been considered in meaningful and representative ways in research. The purpose of the study was to listen to the stories of residents and hear about their experiences in residency with concepts such as burnout, compassion fatigue, discrimination/harassment, as well as how resiliency influenced their experience.

Study Design

Methodology

The methodology for this study was a qualitative phenomenological methodology informed by quantitative data using both a survey including demographic information, open and closed ended questions, and validated assessment measures, as well as a phenomenological approach to qualitative interviews. This methodology was chosen to reflect not only the quantitative measures of the constructs (i.e., burnout or compassion fatigue), but to understand the experiences that are informing the data collected by the assessment measures. The study was designed in two phases: Phase I (a quantitative survey instrument) and Phase II (a qualitative face to face interview).

Phase I: Quantitative

Participant Recruitment. Upon approval from the Institutional Review Board (IRB), participants were recruited using purposeful sampling via social media sites (e.g., Facebook, Twitter, Instagram, and Redditt) and sent via email to residency directors across the nation, and through residency related listservs. Each advertisement included a brief description of the purpose of the study, inclusion criteria, incentive information, and a link to the survey of the study via REDCap (See Appendix B; Harris et al., 2009). Gift cards were used as incentives to help recruit willing participants for both Phase I and II of the study. Incentive for participation in phase 1 was a $10 Amazon gift card.

Sample. Sampling for Phase I included a questionnaire including demographic information, open and closed questions, and validated assessment measures. At the end of the quantitative study, there was an option to opt in to being a potential participant for Phase II the qualitative study. The target sample size was 200 participants and the inclusion criteria for this phase of the study included: (a) adults at least 18 years or older; (b) current medical resident in the United States (not including residents who were taking a break, had quit, or graduated from residency); (c) had fluency in the English language; (d) had access to internet and email; and (e) identified as a racial or ethnic minority, LGBTQ+, or a woman.

Measures

Informed consent. Separate informed consent procedures were used for each phase of the study. For Phase II, participants reviewed an informed consent document through REDCap (Harris et al., 2009) before any data was collected. Participants were informed of the purpose of the study, limits of confidentiality, and data management procedures. Additionally, participants were reminded that participation is completely voluntary and were provided the numbers for accessing mental health services and crisis numbers for the suicide hotline and other mental health crises (See Appendix C).

Demographics and Educational Experience. In order to best capture the intersectional identities of each participant, researchers developed demographics questions intended to gather gender identity, preferred pronouns, sexual orientation, race, and ethnicity. Inclusive options were given for each demographic question by multiple choice. In addition, all demographic questions included a space to write in one’s own explanation or preference when describing that identity (e.g., share your preferred sexual orientation in your own words). Educational experiences were gathered on year in residency, residency type, medical degree (e.g., MD or DO).

Maslach Burnout Inventory Human Services Study**.** The Maslach Burnout Inventory Human Services Survey (MBI-HSS; Maslach et al., 1986) was a 22-item inventory that measures three components of burnout, emotional exhaustion (EE), depersonalization (DP), and Personal

Achievement (PA). Questions were answered based on frequency; participants respond on a seven-point Likert type scale ranging from zero, “never” to six “everyday”. The 22-item inventory assessed for burnout by using three subsections, EE nine questions, DP five questions, and PA eight questions. A key was used to score each subsection (i.e., EE, DP, and PA). Each subsection score was coded as low, moderate, or high. For EE, there was a maximum score of 54, low EE is a score of ≤ 16, moderate EE was a score ranging from 17 to 26, and high EE was a score ≥ 27. For DP, there was a maximum score of 30, low DP was a score of ≤ 6, moderate DP was a score ranging from seven to 12, and high DP was a score of ≥ 13. Lastly, for PA there was a maximum score of 48, low PA ≥ 39, moderate PA ranged from 38 to 22, and high PA was ≥ 13, note that PA was reverse scored. The MBI-HSS had internal consistency of *a* = .9 for EE, *a* = .79 for DP, and *a* = .71 for PA, and standard error for EE is 3.80, DP is 3.16, and PA is 3.73 (Maslach et al., 1986). The MBI-HSS has been previously used with medical residents (Martini et al., 2004) and racial/ethnic minority healthcare professionals (Lawrence et al., 2021).

Professional Quality of Life Measure. The Professional Quality of Life Measure (ProQOL; Stamm, 2010) was a 30-item inventory that measures compassion fatigue and compassion satisfaction in the workplace. The ProQOL was specifically designed for individuals working in a helping profession (e.g., doctor, nurse, therapist, caretaker). Questions for the ProQOL were answered by using a Likert type scale ranging from one indicating “never” to five indicating “very often”, when answering the ProQOL participants were asked to select the number that reflects their experience in the last thirty days. The ProQOL gave three scores indicating Compassion Satisfaction, Burnout, and Secondary Traumatic Stress. To interpret scores for the ProQOL, questions one, four, 15, 17, and 29 were reverse coded. Questions three, six, 12, 16, 18, 20, 22, 24, 27, and 30 were added for a Compassion Satisfaction Score, questions one, four, eight, 10, 15, 17, 19, 21, 26, and 29 were added for a Burnout Score, and questions two, five, seven, nine, 11, 13, 14, 23, 25, and 28 were added for a Secondary Traumatic Stress Score. For each of the measures, a score of ≤ 22 indicated low burnout, compassion fatigue, or secondary traumatic stress, a score ranging from 23 to 41 indicated the score is moderate burnout, compassion fatigue, or secondary traumatic stress, and a score of ≥ 42 indicated high burnout, compassion fatigue, or secondary traumatic stress. The ProQOL had adequate reliability across all three scores, compassion satisfaction (*a* = .88; *SD* = 10); burnout (*a* = .75; SD = 10), and Secondary Traumatic Stress (*a* = .81, *SD* = 10). This measure has been previously used with diverse populations (Stamm, 2010). The Pro-QOL has been previously used with medical residents (Huggard & Dixon, 2011), Black healthcare professionals (Shell et al., 2021), and LGBTQ and sexual minority healthcare professionals (Connally, 2012).

Gender Identity Microaggression Scale. The Gender Identity Microaggression Scale (GIMS; Nadal, 2018) is a 14-item scale indicated to measure microaggressions in the last six months. The GIMS was scored by a number ranging from zero to five. Zero indicated that "I did not experience this event," one indicated "I experienced this event one time in the past six months," two indicates "I experienced this event two times in the past six months," three indicated "I experienced this event three times in the past six months," four indicated, "I experienced this event four times in the past six months," and five indicated that "I experienced this event five or more times in the past six months." To score the GIMS, scores are added from all 14 items and then divided by 14 to obtain the scale score. The scale was broken up into five subscales. Subscale one was the "Denial of Gender Identity" indicated by questions one, five, 11, and 13, to obtain subscale scores questions one, five, 11, and 13 were summed and divided by four. Subscale two was the "Misuse of Pronouns" indicated by questions three and eight.

Questions three and eight were summed then divided by two to obtain the subscale score. Subscale three was the “Invasion of Bodily Privacy” indicted by questions six, nine, and fourteen. To obtain the subscale score questions six, nine, and fourteen were summed then divided by three. Subscale four was “Behavioral Discomfort” indicated by questions two, seven, and twelve. To obtain the subscale of Behavioral Discomfort questions two, seven, and twelve were summed then divided by three. The final subscale, subscale five was the “Denial of Societal Transphobia” indicated by questions four and ten. To obtain the score of subscale five, questions four and ten were summed then divided by two (Nadal, 2018). The pilot study of the GIMS included 260 participants including Gay Men (n = 123), Lesbian Women (n = 55), Bisexual Participants (n = 44), Queer/Pansexual Participants (n = 19), and participants that indicated other (n = 14). Alphas were given based on each subscale: Subscale 1 (a = .93), Subscale 2 (a = .90), Subscale 3 (a = .87), Subscale 4 (a = .90) and Subscale 4 (a = .73).

***Sexual Orientation Microaggression Scale*.** The Sexual Orientation Microaggression Scale (SOMS; Nadal, 2019) is a 24-item scale indicated to measure microaggressions in the last six months. The SOMS is scored by a number ranging from zero to five. Zero indicated that “I did not experience this event,” one indicated “I experienced this event one time in the past six months,” two indicated “I experienced this event two times in the past six months,” three indicated “I experienced this event three times in the past six months,” four indicated, “I experienced this event four times in the past six months,” and five indicated that “I experienced this event five or more times in the past six months.” To score the SOMS, the scores from all 24 items were summed and divided the score by 24 to obtain the scale score. Questions nine, 18, 19, and 23 are reverse scored. The scale was broken up into five subscales. Subscale one was the “Microinvalidations” indicated by questions one, five, 12, 14, 15, 21 and 24, to obtain subscale score questions one, five, 12, 14, 15, and 21 were summed and divide by seven. Subscale two was the "Assumption of Deviance" indicated by questions three, eight, 10, 16, and 17. Questions three, eight, 10, 16, and 17 were summed then divided by five to obtain the subscale score. Subscale three was "Heterosexist Language" indicted by questions four, seven, 11, 13, and 20. To obtain the subscale score sum, questions six, nine, and fourteen then divide by three. Subscale four was the "Endorsement of Gender Conformity" indicated by questions two, six, and 22. To obtain the subscale, questions two, six, and 22 were summed then divide by three. The final subscale, subscale five is "Environmental Microaggressions" indicated by questions nine, 18, 19, and 23. To obtain the score of subscale five, questions nine, 18, 19, and 23 were summed then divided by four (Nadal, 2019). The pilot study of the SOMS included 260 participants including Gay Men (n = 123), Lesbian Women (n = 55), Bisexual Participants (n = 44), Queer/Pansexual Participants (n = 19), and participants that indicated other (n = 14). Alphas were given based on each subscale: Subscale 1 (a = .93), Subscale 2 (a = .90), Subscale 3 (a = .87), Subscale 4 (a = .90), and Subscale 4 (a = .73).

Racial/Ethnic Microaggression Scale. The Racial/Ethnic Microaggression Scale (REMS; Nadal, 2011) is a 45-item scale indicated to measure microaggressions in the last six months. The REMS was scored by a number ranging from zero to five. Zero indicated that "I did not experience this event," one indicated "I experienced this event one time in the past six months," two indicated "I experienced this event two times in the past six months," three indicated "I experienced this event three times in the past six months," four indicated, "I experienced this event four times in the past six months," and five indicated that "I experienced this event five or more times in the past six months." To score the REMS, scores from all 45 items were summed and divided the score by 45 to obtain the scale score. Questions 12, 18, 19, 24, 28, 37, and 41 were reverse scored. The scale was broken up into six subscales. Subscale one was “Assumptions of Inferiority” indicated by questions five, nine, 17, 21, 22, 32, 36, and 38. To obtain the subscale score, scores were summed and divided by eight. Subscale two was “Second-Class Citizen and Assumptions of Criminality” indicated by questions two, six, eight, 11, 31, 34, and 40. To obtain the subscale score, scores were summed and divided by seven. Subscale three was “Microinvalidations” indicted by questions four, seven, 10, 14, 26, 27, 30, 33, and 39. To obtain the subscale score, scores were summed and divided by nine. Subscale four was “Exotization and Assumptions of Similarity” indicated by questions three, 13, 20, 23, 29, 35, 42, 43, and 45; to obtain the subscale score, scores were summed and divided by nine. Subscale five was the “Environmental Microaggressions” indicated by questions 12, 18, 19, 24, 28, 37, and 41; to obtain the subscale score, scores were summed and divided by seven. The final subscale, subscale six was “Workplace and School Microaggressions” indicated by questions 1, 15, 16, 25, and 44; to obtain the subscale score, scores were summed and divided by five (Nadal, 2011). The pilot study of the REMS included (N = 506) participants including: Asian Americans (n = 157), Hispanic/Latino/a Americans (n = 131), Black/African Americans (n = 80), White/European Americans (n = 63), Multiracial/multiethnic persons (n = 48), Others (n = 25), and Not Reported (n = 2). The REMS has adequate reliability with an alpha of (a = .928). Each subscale has a reported alpha, Subscale 1 (a = .894), Subscale 2 (a = .883), Subscale 3 (a = .888), Subscale 4 (a = .852), Subscale 5 (a = .850), and Subscale 6 (a = .850).

Procedures

Phase II data were collected and managed using REDCap electronic data capture tools (Harris et al., 2009) hosted by East Carolina University. REDCap (Research Electronic Data Capture) has been recognized as a secure, web-based software platform designed to support data capture for research studies, providing (a) an intuitive interface for validated data capture; (b) audit trails for tracking data manipulation and export procedures; (c) automated export procedures for seamless data downloads to common statistical packages; and (d) procedures for data integration and interoperability with external sources (Harris et al., 2009).

Quantitative Data Analysis

Frequencies, correlations, and *t*-tests were run to assess for significant differences between groups by identity (e.g., racial/ethnic identity, LGTBQ+ identity, identify as a woman) and to inform the overall qualitative findings. Quantitative analyses used to provide context to the results from the qualitative interviews.

Phase II: Qualitative

Participant Recruitment. Upon approval form the Institutional Review Board (IRB), participants were recruited using purposeful sampling via social media sites (e.g., Facebook, Twitter, Instagram, and Redditt). A recruitment flyer was sent via email to residency directors across the nation and through residency related listservs. Each advertisement included a brief description of the purpose of the study, inclusion criteria, incentive information, and a link to the survey of the study via REDCap (See Appendix B; Harris et al., 2009). Gift cards were used as incentives to help recruit willing participants for both Phase I and II of the study. The incentive for participation in Phase II was a $25 Amazon gift card.

Sample. For phenomenological studies, Creswell (1998) recommended an approximate sample size of five to 25 participants. The inclusion criteria for this phase of the study included: (a) adults at least 18 years or older; (b) current medical resident in the United States (not including residents who were taking a break, have quit, or graduated from residency); (c) had fluency in the English language; (d) had access to internet and email; and (e) identified as a racial or ethnic minority, LGBTQ+, or a woman.

Measure

Informed consent. Informed consent procedures were employed using a two-step process: (a) the initial informed consent to participate in Phase I and (b) an additional consent for Phase II. Prior to the virtual interview, the researcher emailed the additional informed consent as well as a consent for audio and video recording via a HIPAA-compliant video software approved by the university's IRB (i.e., Webex). During the virtual interviews, the researcher reviewed the informed consent document with each participant. Participants were given the opportunity to ask questions about the informed consent and Phase II procedures before proceeding.

Qualitative Interview. During Phase II, participants engaged in open-ended individual interviews conducted by the researcher. For each participant in the qualitative interview, data gathered from Phase II was matched with the recording and transcription of the interview using a coding system (e.g., Survey Participant Number = S101, Interview Participant Number = I101). The researcher used an interview guide (See Appendix E) throughout the interview. Using the interview guide as an outline, the researcher asked open-ended questions followed by probes and clarifying questions to generate a thick description of the phenomenon (Creswell & Poth, 2018). The interview guide included questions that pertained to experiences in residency related to the concepts of burnout, compassion fatigue, discrimination, harassment, and resilience.

Procedures

With participant consent, the researcher video-recorded interviews. Each participant's transcript was deidentified via a confidential and encrypted transcription service. Access to the video-recordings was restricted to research team members who were approved by the university's IRB. The lead researcher informed participants that the recordings would be destroyed after a minimum of three years had elapsed (per IRB regulations). All identifying information related to study participants was kept separate from the recordings and transcriptions, and all participants' names were replaced, and participants were identified by a code number to ensure confidentiality. Raw data, including contact information, transcriptions, recordings, and codes, were stored on a password-protected computer network (i.e., Redcap; Harris et al., 2009) that was accessible only by approved research team members.

Qualitative Data Analysis

Phenomenology. A phenomenological approach was selected as the grounding design and framework for the qualitative portion of this study. According to Edmund Husserl (1998), phenomenology's aim is to determine the nature or essence of the human experience (Creswell & Poth, 2018). In the phenomenological approach employed by Husserl, and in the design implemented for this study, the researcher was tasked with using descriptive inquiry to gather a clear depiction of the participant's experience of the phenomenon. To accomplish this, the researcher must suspend all biases and beliefs related to subject matter and toward the interviewee and remain neutral to avoid bias in conducting the interview. Suspending interviewer beliefs and biases was essential to the success of the interviews and integrity of the research process (i.e., awareness and humility from the interviewer's lens white, cis gender, bisexual, woman, non-physician, educated, middle class, English speaking, American citizen) was necessary while interviewing participants from diverse social locations and lived experiences). For this study, Husserl's approach to phenomenological inquiry and Colaizzi's method of phenomenological analysis were used to inform, conduct, and analyze the qualitative data. Colaizzi's Method of Descriptive Inquiry was chosen for this phenomenological study because of its rigorous methodology, and its utility for exploration and understanding of the phenomenon. Colaizzi's Method of Descriptive Inquiry, which includes six steps, is described in more detail below (Colaizzi, 1987).

Step 1 – Familiarization. Following the qualitative interviews, the interviews were transcribed by a transcription service at the onset of the data analysis process. As data analysis was conducted, the research team simultaneously reviewed each of the interview transcriptions in full to acquire an initial understanding of the participant's experiences.

Step 2 – Identifying Significant Statements. After an initial review of each interview in full, the research team returned to each transcript and extract key phrases and statements that directly pertained to the phenomenon using line-by-line coding. This included any statements related to experiences as a historically marginalized/systemically oppressed resident (Colaizzi, 1978).

Step 3 – Formulating Meaning. Key phrases and statements identified by line-by-line coding were accumulated, then arranged into themes to make meaning of the codes. This process was done by the research team analyzing the codes and grouping them based on commonalities and themes in order to make sense out of the phenomenon. This step takes the significant statements and initial codes and digs deeper into the context and meaning behind each statement.

Step 4 – Clustering Themes. Following the formulation of meaning, the codes and significant statements were clustered into themes based on commonalities and organized based on meaning.

Step 5 – Developing an Exhaustive Description. Following the clustering of themes, the results were integrated into an exhaustive description of the phenomenon. The themes addressed in the previous step were used in this process to ensure that the exhaustive description was encompassing the entirety of the experience.

Step 6 – Producing the Fundamental Structure. Out of the exhaustive descriptions of the phenomenon, the fundamental structure or the essence of the phenomenon was developed. This moved the exhaustive descriptions into clear statements identifying the most important elements of each theme (Colaizzi, 1978).

Conclusion

Clarity was needed to best understand the needs of historically marginalized/systemically oppressed residents. The aim of this study was to understand the experiences of historically marginalized/systemically oppressed residents using both quantitative and qualitative methodologies. A quantitative analysis was conducted to understand both the prevalence of the phenomenon and the fit of validated assessment tools with a diverse population to supplement the qualitative analysis that was completed to understand the experiences of historically marginalized/systemically oppressed residents and center their voices and experiences. It was the intention of this study to center the experiences of historically marginalized/systemically oppressed residents related to burnout, compassion fatigue, discrimination, harassment, and resilience.

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CHAPTER 5: *"I THINK THAT YOU JUST HAVE TO DEAL WITH EXTRA SHIT"*: A PHENOMENOLOGICAL UNDERSTANDING OF HISTORICALLY MARGINALIZED/ SYSTEMICALLY OPPRESSED RESIDENTS' EXPERIENCES

Concerns are mounting across medical education programs and in the healthcare workforce, as they brace for a predicted shortage of 37,800 to 124,000 physicians in the U.S. by the year 2034 (AAMC, 2021). This workforce crisis, accompanied by the COVID-19 pandemic and the volume of providers who are retiring or leaving the field have stretched healthcare systems and physicians to their breaking points. The culmination of these concerns necessitates that physician wellbeing be an utmost priority to healthcare and medical school systems alike. Physician shortages are especially likely to influence rural communities and lower socioeconomic areas, furthering the health inequities for historically marginalized and systemically oppressed communities along with the care received from historically marginalized and systemically oppressed providers (AAMC, 2021). In addition, there have been ongoing social injustices throughout the nation. Combined, these factors have medical schools and healthcare systems accelerating their recruitment pipeline of potential medical students, residents, and practicing providers while also trying to discern how to retain providers by reducing burnout, compassion fatigue, and injustices in the field.

In context of this study, burnout is defined as, "a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism (i.e., role negativity, feeling detached, depersonalization, feeling calloused), and inefficacy (i.e., feelings of lack of competence, achievement or workplace satisfaction)" (Maslach et al., 2001). Compassion fatigue was coined by Figley (1995) to describe emotional, physical, or spiritual distress resulting from exposure to caring or caregiving for a traumatized individual.

Medical residents are in a unique position in the medical education and healthcare systems, serving as both learner and provider. This dual role and the obligations associated with each position put them at increased risk for experiences like burnout and compassion fatigue (Ishak et al., 2009). Researchers have shown that up to 75% of all residents have reported experiencing burnout or compassion fatigue at some point in their career (Ishak et al., 2009; Schrijver, 2016). While the issues of burnout and compassion fatigue are serious concerns for all residents, there are unique concerns related to those with intersecting identities as historically marginalized/systemically oppressed residents that have not been well documented in the literature (Davis et al., Under Review).

The theory of intersectionality provides a lens to examine the cumulative effects of multiple marginalized identities and the ways in which these experiences influence the individual (Crenshaw, 1989). For example, prior to the recognition for and naming of intersectionality, experiences of being Black were primarily understood within the context of Black men and experiences of being a woman was only captured within the context of White women. In other words, gender and race were seen as mutually exclusive experiences rather than qualitatively different experiences related to multiple minoritized identities. This siloed perspective did not adequately capture the wholistic experiences of those who identified as Black and/or those who identified as women (Crenshaw, 2017).

Due to the limited research on the intersecting identities of historically marginalized/systemically oppressed residents, the present study seeks to address this gap in the literature through a quantitatively informed phenomenological methodology aimed at extracting specific ways that intersecting identities influence the experience of residency by exploring topics associated with discrimination, harassment, compassion fatigue, and burnout with those who can describe it best, the residents themselves. It is the intent of this study to (a) introduce the methodology and analyses used to conduct this study in a manner consistent with the intersectional experiences of residents, (b) explain results for both quantitative and qualitative data using frequencies, crosstabulations, and phenomenological organization of themes, (c) discuss core contributions to the literature through the analysis of the data, and (d) provide implications for residency programs to better support their historically marginalized/systemically oppressed residents, as well as strategies for future research that provide further strategies to improve how residencies can address the needs of historically marginalized/systemically oppressed residents.

Method

The current study relied on phenomenological approach using a cross-sectional quantitative survey with demographic information to inform qualitative interviews. A Phenomenological methodology was chosen to reflect the "essence" of the phenomenon of historically marginalized and systemically oppressed medical residents and center the experiences of those who have historically not been well documented in the literature.

Sample and Procedures

Data collection, analysis, and reporting were conducted using a team-based approach, which consisted of the lead researcher, one undergraduate student, and one faculty mentor. All research procedures were approved by the University's Institutional Review Board (UMCIRB 21-001843; See Appendix A).

Participants and Data Collection

Data were collected using a two-phase approach. Phase I included collecting demographic information (e.g., race/ethnicity, gender, sexual orientation, post graduate year, medical specialty, medical degree etc.) and open and closed questions regarding experiences in residency (see Table 1) via REDCap (Harris et al., 2009) – an online, encrypted data storage program. Responses from Phase I were used to provide greater context to the themes discussed by the participants in Phase II, as well as provide a place for participants to indicate their interest in participating in Phase II.

Phase I. The initial sampling frame included 184 U.S. medical residents who identified as LGBTQ+, a cisgender woman, and/or a member of a racially/ethnically marginalized group. Participants from Phase I were recruited using purposeful sampling via medical education listservs, electronic recruitment flyers, and emailing residency coordinators. When accessing the online survey, participants were informed of the purpose of the study, limits of confidentiality, and data management procedures. Additionally, participants were reminded that involvement in the study was completely voluntary, and they could stop or withdraw from the study at any time.

Participants were asked demographic questions (e.g., age, race/ethnicity, gender identity, sexual orientation, medical specialty, medical degree) and questions about their experience in residency (i.e., experiences of burnout/compassion fatigue, discrimination, and harassment; See Table 1). Of the 184 participants who completed the quantitative measures, 77.7% identified as a cisgender woman, 21.2 as a cisgender man, and 1.1% as nonbinary. Race/ethnicity breakdown (*n* = 182) is as follows: African American/Black, 12.1%; Asian/Pacific Islander, 23.6%; American Indian/Alaskan Native, 0.5%; Hispanic/Latinx or Spanish Origin, 14.8%; non-Hispanic White 48.9%, Self-Identified, 7.1%. As for sexual orientation (*N* = 184), 3.8% identified as Gay, 7.1%

Lesbian, 79.3% Straight, 4.3% Bisexual, 3.8% Pansexual, 0.5% Queer, 0.5% Asexual, and 0.5% Self-Identified. In this survey, participants were asked if they wanted to participate in an individual interview. Participants who responded that they were interested in an individual interview were contacted via email and those who responded to the email were virtually interviewed using a HIPAA-compliant video software approved by the university’s IRB (i.e., Cisco Webex).

Phase II. Consistent with the definition provided by Husserl (1998), the intent for data collection for Phase II was to determine the nature or essence of the human experience (Creswell & Poth, 2018). To do so, the research team employed the guidelines set forward in Colaizzi’s method of descriptive inquiry (1978). The guidelines set forward in Colaizzi’s method of descriptive inquiry are used to capture the essence of historically marginalized or systemically oppressed residents’ experiences. In order to best capture the essence of these experiences, data for Phase II of the study were collected by means of in-depth interviews with each study participant. During Phase II of data collection, participants engaged in a new consent document sent to them via email prior to the start of the individual interview, followed by a semi-structured, open-ended individual interview conducted virtually with the lead researcher. The lead researcher used an interview guide, developed through a pilot study with one participant, who was not included in this sample but led to a more streamlined interview guide (See Appendix F). Each interview was video-recorded and transcribed verbatim. All identifying information related to study participants were kept separate from the recordings and transcriptions. Transcriptions were given a number for identification based on the order they responded to the survey measure. Interviews were conducted with residents until data saturation was achieved (Strauss & Corbin, 1998).

A total of 20 residents completed individual interviews as part of Phase II. Full contextual and demographic tables were collected (See Table 2). Of the 20 participants, 12 residents (60%) were cisgender Women, while 12 residents (60%) identified as Straight, 3 residents identified as (15%) Pansexual, 3 residents identified as (15%) Gay, and 2 residents identified as (10%) Lesbian. Demographics for race and ethnicity included: 6 (30%) Asian residents, 5 (25%) non-Hispanic White residents, 4 (20%) African American/Black residents, and 3 (15%) Hispanic/Latinx or Spanish Origin residents. There were a range of specialties represented, including 8 residents in (40%) Family Medicine, 3 residents in (15%) Psychiatry, 2 residents in (10%) Emergency Medicine, 2 residents in (10%) Pathology, 1 resident in (5%) OBGYN, 1 resident in (5%) Surgery, 1 resident in (5%) Physical Medicine and Rehabilitation, and 1 resident (5%) Neurology. Post graduate year (PGY) ranged from PGY1 to PGY4 with 7 residents (35%) in PGY3, 6 residents (30%) in PGY2, 5 residents (25%) in PGY1, and 2 residents (10%) in PG4.

Analysis

The analysis was conducted in two phases. Phase I of the analysis evaluated the quantitative survey, and Phase II examined the qualitative interviews.

Phase I.

Phase I was composed of data gathered from the (*N* = 184) participants who completed the quantitative survey. Frequencies from the survey results were utilized to better understand the prevalence of experiences discussed within the qualitative themes and provided context to what happened in the qualitative themes. The questions and corresponding frequencies are located in Table 1.

Phase II.

Data analysis procedures for the qualitative data were grounded in Colaizzi's method of descriptive inquiry (1978). These guidelines helped the research team to capture the essence of historically marginalized or systemically oppressed residents' experiences with discrimination, harassment, burnout, and compassion fatigue. First, research team members (including the lead researcher and one undergraduate student) individually read each interview transcript to gain an initial understanding of the participants' experiences. As part of Step 2, significant statements within each interview were extracted individually by each team member using line-by-line coding, throughout Step 3, research team members formulated general meanings for the significant statements. Then in Step 4, meanings were organized into theme clusters and divided into themes and subthemes. These themes and subthemes were then reviewed for integrity of the process and accuracy in alignment with each theme through the help of a team of reviewers. In Step 5, team members organized the data based on meanings and emergent themes into an exhaustive description. Data were then organized into five core themes with 14 subthemes using quotes from participants' experiences to highlight the "essence" of the phenomenon (i.e., Step 6; Colaizzi, 1978). Finally, Step 6 is the exhaustive description of the phenomenon. This step identifies and integrates statements with the most important elements from each theme identified in Step 5 (Colaizzi, 1978).

Results

Results reflect both (Phase I) quantitative (N = 184) and (Phase II) qualitative (N = 20) responses, with Phase 1 quantitative data providing additional context to the qualitative responses. The following paragraphs outline the results found and informs the participants' experiences as historically marginalized and systemically oppressed residents.

Phase I.

An analysis of the (N = 184) respondents yielded numerous results regarding diversity, equity, and inclusion (DEI) efforts, as well as discrimination and harassment experiences and reporting procedures in their residency programs. This data is provided in Table 1 as additional context to the qualitative data discussed below (see Table 1).

Phase II.

Through initial coding of qualitative interviews, there were five themes: (a) Reporting Discrimination and Harassment, (b) Additive Stress, (c) Discrimination in the Healthcare System, (d) Wellness, and (e) Connection; additionally, 14 subthemes emerged through the interviews. A description of each theme was developed (see Table 3), along with the number of participants who identified with the theme and excerpts from the interviews to construct the essence of the phenomenon described by the residents.

Reporting Discrimination and Harassment.

One of the questions from the interview guide asked directly about experiences of discrimination and harassment in residency (see Appendix F); but many residents touched on this topic in their conversations even before they were asked directly about these experiences. Most commonly, experiences of microaggressions (n = 16; 80%) were discussed, such as inappropriate comments about their identity or questioning their competency due to their gender. There were other experiences that went further than a passing comment. Some residents encountered discrimination and harassment that were then met with real or perceived challenges surrounding the reporting of that event or experience. These respondents addressed the repercussions that could come to them for taking a stand.

Repercussions of Reporting.

When residents discussed experiences pertaining to the reporting of discrimination and harassment, a common thread was present in the responses (i.e., the concern was about repercussions from reporting (n = 10)). These concerns included being perceived as problematic or not professional. Further, worries were expressed that reporting would negatively impact their career trajectory. A Hispanic/Latino, straight, woman discussed *"Well, there was a point where I needed to decide if I submit a complaint… I was faced with this question myself, 'Is this worthy? Am I going to have any consequences for this?... Are they going to know that this was me? Will there be any retaliation for this?"* While many residents (n = 7) shared that there was fear of retaliation or a change of perception placed on them due to reporting, some residents (n = 3) stated that they felt safe when reporting or felt supported when they brought concerns to others' attention. The latter findings suggest that the concern of reporting can be mitigated by the way that the program or institution responded to the concern.

Lack of Response.

A second subtheme in relation to reporting on discrimination or harassment related to a lack of response from those in charge within the hospital system or the residency faculty and administration. An Asian, straight, woman resident reported that: *"Unless someone physically assaults me, I'm not going to report anything. I mean, people talk about workplace safety and harassment. There's nothing that happens, so it's just not worth it."* Residents who were interviewed (n = 4) reported knowing the mechanism of how to report discrimination and harassment but questioned if reporting did anything besides add additional stress or negative attention on them.

Additive Stress.

All residents work very hard and as a White non-Hispanic, pansexual, woman said, "*I think certainly a long day in the ICU seeing hard cases is probably going to get to you no matter who you are*," but a common theme that occurred throughout the interviews was that of additive stress either physically, mentally, or emotionally that historically marginalized/systemically oppressed residents' carry through their residency experiences above and beyond that of their historically privileged/systemically advantaged counterparts. These experiences were exacerbated and mitigated by other factors in residency. An example of this was the theme of faculty influence, which could act as a protective factor or an additive stressor in the experience of a resident. A mixed race, pansexual man resident reported that, "*My program director himself, and honestly pretty much the whole department, has been incredibly supportive. Even when I was at the worst of my burnout, nobody made an issue over taking the time off that I took off."* However, another resident, identifying as an Asian, straight, woman, reported, "*At the beginning I felt like they [program faculty] were really supportive, and then there's been some stuff along the way where, 'I'm like, I don't know if I trust them as much.'"* These subthemes are discussed in greater detail below, specific to the additive stress regularly experienced by historically marginalized/systemically oppressed residents' and how these are both mitigated and exacerbated by other factors.

Having to Work Harder.

One common experience discussed is having to work harder in residency, meaning that residents will go above and beyond what is required of them to give no one a reason to doubt their competence or their place in residency (*n* = 9). This additional stress comes in a variety of different forms. A White non-Hispanic, lesbian, woman resident reported, *"I feel like I have* *more to prove than my other residents. So, I will get up earlier, and I'll be rounding on patients two or three hours before everyone else to try to prove that I am just as capable as they are."* While some residents reported taking on additional work in patient care to prove their competency, others reported taking on more when it came to DEI. Experiences included being present at recruitment events to increase the representation of diversity on behalf of the program or putting in additional labor educating others about the experiences of historically marginalized/systemically oppressed patients and advocating for their health.

Voice of my Community.

Being a voice for the communities they identify with was also described as an additional stressor put on historically marginalized/systemically oppressed residents (*n* = 6). But like many of the other subthemes discussed below, being a voice of and for their community acted to both exacerbate (*n* = 3) and mitigate (*n* = 3) additive stress. One resident reported that the additional stress of being a historically marginalized/systemically oppressed resident contributed to burnout; a White non-Hispanic, gay, man resident shared, *"But I think that just having to bear that burden of your community and being that person to take the fall, which is probably going to be harder than people who aren't underrepresented."* While another resident discussed how representing her community was core to her identity and purpose in medicine; a Black, straight, woman resident stated, "*And there is a sense of pride that comes with your patient population. Being able to see someone who looks like them and feel safe…"* While acting as a voice for and of one's community was core to making meaning of the work they do, this role has been shown to protect against compassion fatigue (Wald et al., 2016), but also placed additional stress and responsibility on historically marginalized/systemically oppressed residents.

Call me doctor.

The theme "Call me doctor" came from the experience of having to explain who you are and defend your competency as a physician, while those in privileged social identities (e.g., white cisgender men) were often given respect and acknowledged for their role implicitly. This concept was particularly salient for residents who were often younger physicians and even more so for those who identified with one or more historically marginalized or systemically oppressed identities (n = 12). Many of the women participants (n = 8; 66.7%) reported that they were referred to as a nurse or as someone on the healthcare team other than the physician and must take additional time to justify their competency before continuing their work. Other ways residents had to justify their competence was by teaching patients and staff how to learn to pronounce their name correctly (n = 2) or to prove they are competent doctors due to where they were trained (e.g., foreign medical graduates; n = 3).

Fear and Second Guessing.

Another additive stressor in residency was the fear and second guessing that accompanies expression of one's identity, point of view, or expressions due to the response or feared response of others. Of the 20 residents interviewed, 7 discussed the theme of fear and second guessing themselves. The core of this theme was the additional stressors placed on historically marginalized/systemically oppressed residents due to consistently having to alter their behavior to manage the responses from others. One Black, straight, woman resident discussed her fear of how she was perceived by others: "*I think there is like this inherent fear for me of like coming across as the angry black woman... But I think there's like this added pressure that like, I don't agree, or I speak up that I'm going to come across as this, why can't I just not agree and speak up?"*

Faculty Influences.

The influence of faculty on the additive stress experienced by historically marginalized/systemically oppressed residents was profound with (*n* = 14) residents discussing this in their interviews. Like many of the other themes, faculty influence had a profound impact mitigating and exacerbating additive stress. Of the (*n* =14) residents who discussed the relevance of faculty influence, (*n* = 9) discussed how faculty, and specifically program directors and behavioral medicine faculty, had a positive influence in their residency experience or in why they chose that residency. The influence of these faculty acted as protective factors to stress by providing safe places to discuss issues and listen to the residents. Residents described positive experiences with faculty when they stood up for the resident when discrimination and harassment occurred, and when they, too, represented historically marginalized/systemically oppressed identities. Conversely, (*n* = 5) residents reported that concerns with faculty increased their stress when they experienced microaggressions, poor or unequal treatment of residents, and lack of communication.

Influence of Intersectionality.

Several residents (*n* = 4) commented on how there were additional stressors related to their intersectional identities in context of their residency program. As White non-Hispanic, lesbian, woman resident put it, "*I'll say being gay, being a woman. I think that you just have to deal with extra shit. I think that we probably experience a little bit more because of just all the extra variables we have to deal with.*" Residents also discussed how a diverse residency program (*n* = 11) with residents and faculty from all backgrounds and identities added to their experience and were protective from additive stress. These residents noted that they will take the experiences from working with a diverse group of colleagues with them throughout their career and use them to enhance their practice.

Discrimination in the Healthcare System.

The theme "Discrimination in the Healthcare System" accounted for the ways that the healthcare system at large, expanded out from the realm of residency education into the systemic experiences of historically marginalized/systemically oppressed residents. This theme included questioning the policies and procedures in place for discrimination and harassment perpetrated by patients, staff, and attendings, as well as how DEI, burnout, and provider wellbeing are addressed on a hospital systemwide level.

Interactions with Patients and their Families.

Residents reported interactions with patients and their families where they were discriminated against or harassed (*n* = 7). Only two residents reported that staff or faculty took patient-perpetrated discrimination seriously and addressed their concern, a Black, straight, woman resident reported, *"I had a patient who referred to me, and one of my co-residents, and some of our nurses, and MAs as the N word. And my White attending was like, 'Absolutely not.' And the patient got dismissed from our practice. He was just like, 'We are not going to stand for that, absolutely not.' And that was a very refreshing moment for me. It really made me feel, I made a good decision ranking the program the way that I had. Because I feel safe here when it comes to certain stuff that within my program (e.g., being supported through mistreatment by patients)."* On the contrary, other residents felt distanced and lack of trust when faculty or staff did not take these instances of discrimination or harassment seriously (*n* = 3). A White non-Hispanic, lesbian woman reported, that while rounding with the team, *"a patient stated, 'Can she* *stay with me today? I could use a pretty little things like that in my room.' No one said anything and laughed it off. I expected someone to kind of say something."*

***Interactions with the Hospital System*.**

Similarly, to the previous subtheme, the theme "Interactions with the Hospital System" resulted in a variety of responses that varied based on perceived support and action on the part of the hospital system. For example, 50% of residents in the qualitative study (n = 10) reported interactions with the hospital system that ranged from praise for the burnout, compassion fatigue, and diversity focused services they provide, to how the hospital was more concerned with "covering their own ass" than the wellbeing of the patients and physicians. This variety in responses again highlighted how the relationship with the hospital system influences the experiences of historically marginalized/systemically oppressed residents and how it was an important factor to consider when advocating for the wellbeing of historically marginalized/systemically oppressed residents.

Wellness.

Interestingly wellness was not a topic specifically addressed in any of the interview questions (See Appendix F) but was discussed regularly by the residents interviewed. Similar to the previous theme, there were a variety of responses regarding wellness and the legacy effects of wellbeing brought to residents by interaction with their faculty. This variety in responses highlighted several important elements of resident wellbeing: (a) residencies are engaging in a variety of wellness strategies with varying levels of efficacy, (b) perceived benefits of these efforts vary based on the resident and their individual characteristics and preferences, and (c) residents care about their wellness as seen through their engagement on this topic in their interviews.

Venues for Wellness.

There were a variety of remarks related to how wellness was addressed in residency, with (n = 11) residents discussing this theme. The responses varied from being pleased with the wellness strategies being implemented in their programs to thinking what is currently being done is inadequate to address resident wellness. One White non-Hispanic, lesbian, woman resident reported, "*I think it is the absolute worst thing that residencies will combat burnout with a lecture about burnout. I think that is the stupidest thing I've ever heard of in my life."* Residents not only discussed what they liked or disliked about resident wellness curriculum or events, but what could be improved on regarding their wellness. Residents offered suggestions that would add a significant quality of life improvement for them. These recommendations included personal days off every couple of months to allow them to schedule personal health appointments, get their oil changed, or take their pet to the vet. Residents also reported the importance of being listened to by their faculty (about their concerns and struggles) without being automatically shut down. Lastly, residents shared the benefits of resident support groups for each Post Graduate Year (PGY) so they can discuss relevant issues together based on what they are currently going through in residency. These responses made it clear that wellness was a priority to residents and that they have realistic suggestions to improve wellness during residency.

Legacy Effects.

Legacy effects in medicine have long set the standard for what happens in medical education, even with improved curriculum and training by governing bodies (e.g., 80-hour work week caps, limits around "pimping", etc.; ACGME, 2020) some of the legacy effects are still felt by the residents (n = 5) in this study. One Asian, straight, woman resident reported hearing things like, "*'Oh, you guys have it so easy these days compared to what we had to do, we had to spend over 24 hours in the hospital and we had to do this many hours. You guys have an 80-hour cap. You should be thankful."* when bringing up concerns in their programs. Another Black, straight, woman resident reported that her residency is, *"promoting an atmosphere that is open to change, because residency today shouldn't be like what it was 20 years ago, 40 years ago. So, not staying in this mindset that, 'Oh, if I had to do it, you have to do it too.'"* This showed that some residencies were moving in a different direction and letting go of some of the negative aspects of previous medical education while others were having trouble leaving things in the past.

Connection.

The final central theme in this study was connection. Many of the residents interviewed reported that they felt increased connection or compassion with patients and their colleagues due to their shared experiences of being underrepresented in some way.

Compassion/Connection with Patients.

Many of the residents interviewed reported that they felt increased connection or compassion with patients due to their shared experiences of being underrepresented in some way (n = 9), while others reported sometimes having difficulty with compassion and connection with patients who outwardly discriminate against them or people in their community (n = 4; two participants mentioned experiences of both greater and decreased connection). While often these experiences were used to connect with patients bringing greater compassion and connection into the exam room, some residents discussed how it was sometimes difficult to care for patients who made disparaging comments about them or their identity. These experiences made it harder for residents to connect with these patients leading to residents having a desire to pass patients off to other providers or get in and out of the room quickly. These experiences also led to internal conflict for the residents about their responsibility to give quality care and their feelings toward those who have no respect for them or their identities.

Connection with Colleagues.

The shared connection previously discussed with patients in the previous subtheme was also discussed in how (n = 9) residents related to their colleagues. Residents reported that their identities and shared experiences fueled connection in their relationships with colleagues who were experiencing burnout, discrimination, or the shared trauma of being in residency. One Asian, gay, man resident describes this concept as, *"It's just the feeling of camaraderie and unity… it was just being able to actually celebrate the diversity, if you will."* Residents reported that increased diversity in their programs helped with safety and connection. This is consistent with the statistic from the corresponding quantitative analysis where co-residents were one of lowest subgroups when it came to those who perpetrated instances of discrimination and harassment against historically marginalized/systemically oppressed residents at 15.5%.

Culmination of the Phenomenological Study

The culmination of the themes uncovered in this study describe a range of experiences unique to each resident and each program. While core themes such as: wellness, connection, discrimination in healthcare, additive stress, and reporting discrimination and harassment were common themes throughout the study, the ways that the residents interacted with these themes differed greatly. Meaning that no two residency experiences are alike, factors such as personal experiences, multiple marginalized identities, and program specifics all play a role into this phenomenon and the range of ways it is expressed (e.g., if additive stress is exacerbated or mitigated through faculty interactions). This phenomenon makes it essential for good communication between residents on the part of residency programs to understand how these and other factors are influencing resident experiences. Recruitment and retention of historically marginalized/systemically oppressed residents happen through facilitating trusting relationships and enacting healthy communication practices. The experiences of historically marginalized and systemically oppressed residents are as diverse as the respondents themselves; however, their voices unite on core thematic areas (i.e., wellness, connection, discrimination in healthcare, additive stress, and reporting discrimination and harassment), which highlight areas of strength and areas for improvement in context of residency experiences.

Discussion

Under Accreditation Council for Graduate Medical Education (ACGME) guidelines, residencies have requirements regarding DEI and resident wellbeing with which all residencies must comply. Requirements in the Common Program Requirements specific to DEI are as follows: attention to the recruitment and retention of a diverse provider workforce (Section 1.C), a requirement for program directors to provide a safe environment for reporting discrimination and harassment without retaliation (Requirement II.A.4.a.10), and the requirement for the sponsoring system to be an environment free from discrimination, harassment, mistreatment, abuse, and coercion (Requirement VI.B.6). In 2017, the ACGME revised the Common Program Requirements that all residencies and fellowships must follow to address wellbeing through psychological, emotional, and physical well-being (ACGME, 2020).

It is promising that there have been ongoing improvements to the Common Program Requirements through ACGME involving DEI and resident wellness, that align with the residents' priorities found in the present study (i.e., safety in reporting discrimination and harassment and resident wellness; ACGME, 2020), but it is clear that there are discrepancies among residencies about how these requirements should be put into practice and utilized by residency programs. This leaves ample room for growth in residencies on how to implement these requirements in a way that is actually meeting the needs of the residents they were put in place for.

The inconsistency in the efficacy of diversity and inclusion practices reported in the present study was consistent with the CERA study done by Potts and colleagues (2021). According to their survey of 272 family medicine program directors, 56% of programs reported they had practices in place to address discrimination and bias, but half of the program directors with these initiatives did not find these effective or reported they had a limited effect. It is clear through the ACGME requirements, the survey of the program directors, and the present study with historically marginalized/systemically oppressed residents that DEI specifically related to discrimination or harassment and reporting, as well as wellness are top concerns for all involved, but further implementation strategies are needed to make these priorities a consistent and effective reality.

Implications for Residency Programs.

It is clear from the findings in this article, that safety in reporting and resident wellness are a top priority for historically marginalized/systemically oppressed residents. Due to the discrepancies in implementation of the requirements set forward by the ACGME Common Program Requirements by residencies, the themes presented in this study may act as a guide for further strategies to aid residency programs in their implementation of DEI and wellness programs. Recommendations related to DEI and reporting, improved strategies for resident wellness, and ways residency programs can reduce additive stress for historically marginalized/systemically oppressed residents are described below.

Several strategies have been mentioned in the literature as ways to improve bias and eradicate discrimination in health learning environments such as the guiding framework put forward by Mateo and Williams (2020). The recommendations given for this study build off this framework with even more tangible steps to improve residency experiences for historically marginalized/systemically oppressed residents. Residents in our study offered three concrete strategies to improve DEI and reporting mechanisms for discrimination and harassment. First, these needs to be implementation of clearly defined courses of action for discrimination and harassment complaints brought forward by residents (e.g., giving warnings to patients and their families, attendings having a conversation with the patient on the resident's behalf, or patient's dismissal from the clinic). Second, protocols must be put in place to ensure a follow up mechanism with the resident, prompted by faculty and staff, when discrimination and harassment occurs in clinic and hospital settings. Lastly, third, training for faculty and staff should be offered on DEI, discrimination, and harassment, including a tracking system to identify accountability and ensure resident safety and wellbeing. These recommendations are consistent with the guiding framework set forward by Mateo and Williams (2020) in recommendations 1 and 2.

Residents' benefits from wellness programs existed on a continuum. Some residents pointed out strategies that seem to help while others reported wellness programs they would like to see be improved. Strategies to enhance wellness included: (a) Implementation of quarterly wellness days where residents can schedule appointments for things like going to the doctor or getting their oil changed, taking their pet to the vet (Cedfeldt et al., 2015); (b) Faculty listening to their concerns without defaulting to shutting down; and (c) Resident support groups by post graduate year (Roberts, 2012). These responses made it clear that wellness was a priority to residents and that they have realistic suggestions to improve how wellness can be addressed in residency.

Finally, reducing additive stress on the part of the resident can include the reduction of invisible and unpaid labor pertaining to DEI and tokenizing residents by asking them to be the face of diversity for the program (i.e., educating others on DEI in addition to their regular responsibilities; Argueza et al., 2021). Another recommendation toward equity is to design all name tags and other relevant provider information with the title “Dr.” (e.g., have employee name tag read Dr. Jones instead of Erica J.) to support historically marginalized/systemically oppressed physicians, particularly women, in their role at an institutional level (Devon, 2019).

Limitations.

Although the current study provides important contributions to the literature, there are limitations to this study. In order to reach a historically marginalized/systemically oppressed pool of residents only residents who identified as a cisgender woman, part of the LGBTQ+ community, or a racial/ethnic minority were eligible to participate in the study. While the identities focused on for this study add to the body of literature on historically marginalized/systemically oppressed residents, multiple marginalized identities (e.g., age, nationality, ability, socioeconomic status, primary language, location of medical training, etc.) were not included in this study due to space and feasibility limiting the generalizability to all historically marginalized/systemically oppressed residents. Future researchers should explore marginalizing experiences of a greater population of historically marginalized/systemically oppressed residents to further generalize these findings. Additionally, due to the sampling strategy of the study (i.e., snowball sampling; using emails to residents and residency coordinators) greater generalization related to area of the country, medical specialty, program type, and other regional factors could be beneficial to generalizing these findings to all historically marginalized/systemically oppressed residents.

Conclusion

With increased need for a diverse physician workforce in the coming years, it is essential that residency programs meet the needs of historically marginalized/systemically oppressed residents. It is through listening to their experiences and taking action to improve their experiences that progress can be made within residencies and the healthcare system as a whole. This manuscript has made clear the stories of historically marginalized/systemically oppressed residents in order to contribute to the body of literature to meet the needs of residencies nationwide and better support underrepresented medical residents.

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Table 1.

Descriptive Statistics of Historically Marginalized/Systemically Oppressed Residents – Phase I Quantitative (N = 184)

Demographic Variables	Number, Percent (%)
Gender (*n* = 184)	
Woman	(143, 77.7%)
Man	(39, 21.2%)
Nonbinary	(2, 1.1%)
Post Graduate Year (PGY) (*n* = 184)	
PGY1	(50, 27.2%)
PGY2	(52, 28.3%)
PGY3	(57, 31.0%)
PGY4	(18, 9.8%)
PGY5	(5, 2.7%)
PGY6	(2, 1.1%)
Race (*n* = 182)	
African American/Black	(22, 12.1%)
Asian/Pacific Islander	(43, 23.6%)
American Indian/Alaska Native	(1, 0.5%)
Hispanic/Latinx/or Spanish Origin	(27, 14.8%)
Non-Hispanic White	(89, 48.9%)
Self-Identified	(13, 7.1%)
Sexual Orientation (*n* = 184)	
Gay	(7, 3.8%)
Lesbian	(13, 7.1%)
Straight	(146, 79.3%)
Bisexual	(8, 4.3%)
Pansexual	(7, 3.8%)
Queer	(1, 0.5%)
Asexual	(1, 0.5%)
Other	(1, 0.5%)
Medical Degree (*n* = 182)	
MD	(143, 78.6%)
DO	(39, 21.4%)
First Choice Match (*n* = 183)	
Yes	(101, 55.2%)
No	(82, 44.8%)
Program Director Identity (*n* = 184)	
Woman	(107, 58.2%)
Man	(72, 39.1%)
I don’t know	(5, 2.7%)

Specialty (n = 184)	
Family Medicine	(61, 33.2%)
Pediatrics	(29, 15.8%)
Psychiatry	(16, 8.7%)
OBGYN	(13, 7.1%)
Surgery	(12, 6.5%)
Pathology	(11, 6.0%)
Emergency Medicine	(8, 4.3%)
Radiology	(6, 3.3%)
Internal Medicine	(5, 2.7%)
PM/R	(4, 2.2%)
Ortho	(4, 2.2%)
Neurology	(4, 2.2%)
Neurosurgery	(3, 1.6%)
Anesthesiology	(2, 1.1%)
Urology	(1, 0.5%)
Prefer not to say	(1, 0.5%)
Transition year	(1, 0.5%)
Dentistry	(1, 0.5%)
Dual Program	
IM/Psych	(1, 0.5%)
EM/IM	(1, 0.5%)
Does your residency provide the resources you need to address your wellness? (*n* = 182)	
Yes	(154, 84.6%)
No	(28, 15.4%)
Does your residency meet your needs as a historically marginalized or systemically oppressed resident? (*n* = 182)	
Yes	(147, 80.8%)
No	(35, 19.2%)
Which of these experiences have you experienced during residency? (*n* = 110)	
Discrimination based on Race/Ethnicity	(34, 30.9%)
Discrimination based on Gender/Sex	(72, 65.5%)
Discrimination based on Gender Identity/Sexual Orientation	(8, 7.3%)
Harassment based on Race/Ethnicity	(16, 14.5%)
Harassment based on Gender/Sex	(34, 30.9%)
Harassment based on Gender Identity/Sexual Orientation	(6, 5.5%)

If yes, who perpetrated these actions. (*n* = 110)	
Staff (e.g., MAs, RNs, Front Desk)	(49, 44.5%)
Administration (e.g., resident coordinator)	(10, 9.1%)
Faculty/Attending Physicians	(39, 35.5%)
Co-Residents	(17, 15.5%)
Patients and/or Their Families	(86, 78.2%)
Do you know if there are repercussions in place for perpetrators of harassment and discrimination in your residency? (*n* = 179)	
Yes	(90, 50.3%)
No	(89, 49.7%)
Do you feel that your historically marginalized/ systemically oppressed identity is related to your experiences of harassment and discrimination in residency? (*n* = 181)	
Yes	(96, 53.0%)
No	(29, 16.0%)
Not applicable	(56, 30.9%)
Have you experienced burnout and/or compassion fatigue during residency? (*n* = 184)	
Yes	(144, 78.3%)
No	(40, 21.7%)
Can you discuss feelings of burnout or compassion fatigue openly in your residency without fear or repercussions? (*n* = 182)	
Yes	(143, 78.6%)
No	(39, 21.4%)
Do you feel that your experiences of burnout or compassion fatigue are impacted by experiences of discrimination/harassment in residency? (*n* = 180)	
Yes	(64, 35.4%)
No	(117, 64.6%)

Table 2

Contextual Information for Qualitative Participants (N = 20)

Number	Gender Identity	Race/ Ethnicity	Sexual Orientation
6	Man	Hispanic/Latinx/Spanish Origin	Gay
19	Woman	White non-Hispanic	Pansexual
24	Man	African American/Black	Straight
42	Man	Asian/Pacific Islander	Straight
47	Man	Asian/Pacific Islander	Straight
48	Woman	Asian/Pacific Islander	Straight
54	Man	Asian/White	Pansexual
59	Woman	Middle Eastern	Straight
63	Woman	White non-Hispanic	Lesbian
68	Woman	Asian (Chinese)	Pansexual
73	Woman	White non-Hispanic	Lesbian
81	Woman	Asian/Pacific Islander	Straight
84	Woman	African American/Black	Straight
99	Woman	African American/Black	Straight
100	Woman	White non-Hispanic	Straight
123	Man	White non-Hispanic	Gay
166	Man	Asian/Pacific Islander	Gay
176	Woman	Hispanic/Latinx/Spanish Origin	Straight
177	Man	Hispanic/Latinx/Spanish Origin	Straight
179	Woman	African American/Black	Straight

Table 2 cont.

Contextual Information for Qualitative Participants (N = 20)

Post Graduate Year (PGY)	**Number of Residents**	**Percentage**
PGY1	5	25%
PGY2	6	30%
PGY3	7	35%
PGY4	2	10%
Medical Specialty	**Number of Residents**	**Percentage**
Family Medicine	8	40%
Psychiatry	3	15%
Emergency Medicine `	2	10%
Pathology	2	10%
OBGYN	1	5%
Surgery	1	5%
Physical Medicine & Rehabilitation	1	5%
Neurology	1	5%

Table 3

Themes and Subthemes Related to Residency Experiences and Exemplar Quotes

Themes	*n* size (*N* = 20)	Subthemes	Thematic Examples	Quotes
1. Reporting Discrimination and Harassment	*n* = 10	A. Repercussions for Reporting	Concerns with the safety of reporting instances of discrimination and harassment in residency for fear of repercussions.	*"Seeing how they treated my coresident for speaking up has definitely silenced me more, because I remember our program director, he appears very PC and he's always talking about how he's trying and stuff. Then I was at one of the resident events with him and my co-resident didn't show up. So, he was saying, "Oh, she's always talking about microaggressions and stuff." He rolls his eyes and just the way he talks about it, that he thinks the things that she's brought up has been a joke to him. So, it does make you think twice about speaking up again because you see how people actually think about it in their private time or between each other." (48)* *"Yeah…. I haven't really reported it [discrimination] on evaluations because I'm afraid of what's going to come back and how they're going to follow up with me." (63)* *"Well, there was a point where I needed to decide if I submit a complaint… I was seeing so many things in the program that I was faced with this question myself, 'Is this worthy? Am I going to have any consequences for this?' Even though the complaint would be anonymous, I was in the back mind of my mind thinking, 'Are they going to know that this was me? Will there be any retaliation for this?' I found ways on how to cope with that without really going forward and submitting my complaint." (167)*
	n = 4	B. Lack of Response	Witnessing a lack of response or repercussion when a resident reports discrimination or harassment or believing that no response will happen if they report.	*"I mean, I'm not going to report anything unless someone shakes me basically. Unless someone physically assaults me, I'm not going to report anything."* *"I mean, people talk about workplace safety and harassment. There's nothing that happens, so it's just not worth it." (48)* *"I had an instance where one of my patients was tackled. I had a delirious patient who was tackled by a campus police officer out of nowhere, and then I got in trouble for reporting the police officer, which I felt like they basically told me to lie about the situation to say that the guy fell, we try to protect our patients, and we try to do what's right. You're at a standstill where the administration, and your program director, stuff like this wants you to lie and protect the name of the hospital where your core is telling you to try to do the right thing and protect your patient. I think that's kind of one of the things that happens in big hospitals is, at the end of the day, I feel like they try to protect their own ass. Yeah, that's probably what I would say." (73)*
2. Additive Stress	*n* = 9	A. Having to work Harder	Working harder in residency to prove they belong, carrying additional stress, or	*"I don't want anyone to have any excuse to have anything bad to say about me." (24)* *"I feel like I have more to prove than my other residents. So, I will get up earlier, and I'll be rounding on patients two or three hours before everyone else to try to prove that I am just as capable as they are." (63)*

			experiencing additional toll.	*I was the president of (honor society in medical school), and I had a student come and say, "I know... the only reason you're in this is because you're Black. And if I hadn't goofed around in this class, I would be in it too." And I was like, "What the heck?" People feel comfortable saying those sorts of things to you sometimes. And so, there's always been a stress to overperform, and I guess, I don't want to say prove people wrong or prove people's misconceptions and prejudices against you wrong and I hate to say that. Obviously, I would never like underperform. (99)* *"In general, minorities. Just putting an example for myself, I tend to take more workload. Just the fact that I am a minority in this country, I have this mindset. Things are not given to me. I need to work and really make sure that I am doing my best." (176)* *"I think certainly a long day in the ICU seeing hard cases is probably going to get to you no matter who you are, but I think for me sometimes it just relates to how much do I have left to give? How much am I worrying about myself? How much do I have left to give to others?" (19)*
n = 6	B.	Voice of my community	The additional stress of being the face of one's community or intersectional identity.	*"But I think that just having to bear that burden of your community and being that person to take the fall, which is probably going to be harder than people who aren't underrepresented, just because you have that other piece and maybe some of it's just your own self-doubt, but then other people over analyzing things and then that can make you just get more exhausted, more exhausted, and that would lead to burnout I think." (123)* *I think that has been like patients who sought out a minority physician. So, I have recently acquired, or no, actually I recently had two new patients who sought out a black female provider, and I think that was great. Or the surprise when you walk into a minority patient's room and introduce yourself as a doctor and see the amount of patients who've been like, I'm really proud of you and like, not knowing me, but just seeing me in this role. So, I think that in of itself is a benefit because I want to serve and there's the research to that if your physician looks like you, your chance sort of getting better care or also adhering to your care greater, and so I think that's the driving force, but I've also had really great interactions with patients who don't identify as I do myself. So just having really positive patient interactions in general has been really helpful for me. (84)* *"Even, and this might sound weird, but even the ladies at the cash registers in our cafeteria. You don't maybe know how often they stop me and they say, 'Hey, I'm so proud of you for being a Black girl doing this.' And they say, 'I'm so proud of you every time I see you guys. I'm so proud of you guys.' Referring to the Black residents. But I think that there are certain like nuances, certain parts of my life, which is important for me to acknowledge that I'm a Black woman because there's not many Black women in medicine. And there is a sense of pride that comes with your patient population. Being able to see someone who looks like them and feel safe… And so for me, I hate to say it, but a lot of what I encountered as a Black woman as an OB, is outpatients that are like, "I'm so happy to see you." Or I literally have patients say like, "I'm so happy you're here. Please don't let me die." It was just sad*

				that people have to think that way. I don't feel any of my co-residents who are not Black feel that way or having any of those misconceptions." (99)
n = 12	C.	Call me doctor	Having to work harder to explain role on the treatment team or gain trust from patients because of one's intersectional identity.	*"I know that the faculty member that I was working with one night was a white identifying female. We both happened to be wearing black scrubs and watching the patient's room and the patient assumed we were nursing. The faculty didn't address it with me, which was interesting, but I heard from like an upper level that the faculty was kind of like, yeah, that hasn't really happened and was like taken aback, and me being like this happens at least once a day for me. Just like her reaction and me being like, "Yeah, this is normal." Just kind of like her awareness of like, "Oh, this is uncomfortable, and me being like, "It happens all the time," (84)* *"Feeling that my credential or my knowledge is being questioned just because of how I look or my gender. Or what the patient perceives my role to be, they'll ask to talk to the doctor and then I'll have to clarify I am the doctor…I think for the patients who do this, I have a feeling that it complicates their own medical care because definitely I think when they don't want to acknowledge me as their doctor or, they don't trust me." (68)* *"I think that for the most part, honestly, being gay doesn't really change much of my day-to-day stuff in residency. I think if anything, being a woman is probably something that I'm more cognizant of in residency. I've had patients... Obviously, I'm always called a nurse. I actually had a patient tell me... I introduce myself as a doctor, and he asked me if I'm sure I'm not a nurse after telling him multiple times that I'm a doctor. Yeah. Then I feel like I get more discrimination being from my gender than being gay because, obviously, I don't really wear a tag saying I'm gay." (73)*
n = 7	D.	Fear and Second Guessing	Fearful of expressing one's identity, point of view, or emotions because of the response of others.	*"I've felt the need to hide sometimes, and I've had the privilege to be able to do that but that comes with a lot of stress and a lot of fear even if I suspect people are going to react well when they know [about my identity], but that's not a guarantee. And that's something I worry that I can kind of worry about or take home with me or that makes life harder." (19)* *"Well, it's always on the back of your mind, like, oh, are they doing this because they think that culturally I'll respond a certain way? Or do they come in with preconceived notions about how I'll react? You always have it in the back of your mind as a minority. How does this either affect or fall into their comfort level with how I'm supposed to react? You realize they're not really there to help you no matter what they say. It's just better to not say anything at all." (48)* *'But I think there is like this inherent fear for me of like coming across as the angry black woman. Yes, I can be serious when I need to be serious, but then I also don't want to joke, but I want to build the rapport and have my patients feel comfortable with me, which is what's been happening, especially in my continued clinic, which has been really rewarding. But I think there's like this added pressure that like, I don't agree, or I speak up that I'm going to come across as this where like, why can't I just not agree and speak up?" (84)*

				"I remember walking by a hallway and I heard one of the security officers just walk by me and tell me to go back to China or something as he was walking by, so by the time I turned back, I already like, what? I thought that was kind of rude, but at the same time, I'm like 'All right, whatever.' But then it makes me actually a bit more cautious and aware. If this is the kind of a treatment I get as a physician in a hospital, and that was when the news came out where this old lady in Chinatown get kicked in the face or whatever. That was around that time. So I'm like, 'Oh shit, that's real.'. So, then I check on my family….. So it's like, 'Hey, don't go out.' So that's that. But I wasn't actually stressed out, they all know how to protect themselves and I am fine. Overall, everyone is very courteous. And we don't wear white coat, we wear black jacket, so I should be okay." (166)
n = 14	E.	Faculty Influences	Additional stress or support provided by interactions with faculty.	*"My program director himself, and honestly pretty much the whole department, has been incredibly supportive. Even when I was at the worst of my burnout, nobody made an issue over taking the time off that I took off." (54)* *"I would say I picked my residency because of my program director, who is just the kindest person on the planet." (63)* *"At the beginning I felt like they were really, really supportive, and then there's been some stuff along the way where, 'I'm like, I don't know if I trust them as much,' We're very frustrated with the communication. Yeah. They're not communicating." (81)* *[When asked to imagine what would be different in a program without burnout, discrimination, harassment, he responded] "The program director or the associate program director must be a person who belongs to these communities, otherwise they will ignore that because they're like, 'Oh no, if I don't see the problem, the problem doesn't exist.' So I think when a program director or an associate program director, or somebody with power in the middle of the residency program has experienced these during his or her training, they will be making things to improve. And that's going to be a program with a very good and interesting work environment." (177)*
n = 13	F.	Influence of Intersectionality	Representation and diversity among the residency cohort.	*"Diverse residency cohort, nice to be in this environment where I am able to grow outside the medical aspect. So that has definitely enhanced my training and I think that's an asset I can take moving forward wherever I end up." (47)* *"So, I feel like all of that has me in the majority. My program is predominantly Black [discussing a Historically Black Institution]. I'm Black. There are more women than men. I'm female. I fit in with the average age, it's like late twenties, early thirties. I identify as heterosexual. Most of the people in my program identify as heterosexual, if not all of them. So, I'm in the majority. So, it feels good to be in the majority for once. So that's been my experience. I feel like it gives me more confidence, and confidence can go a long way. It also makes me more open to learning. Because I'm not facing any other prejudice, I'm willing to be more vulnerable when it comes to learning versus always having a defense up, and also having diversity. Diversity in race, age, gender, sexual orientation, religion. Just having a lot of diversity, at least if not in the residents and the staff, but ideally in both so*

					that people can have someone that they can relate to or go to. And having diverse viewpoints when it comes to implementing like policies and procedures can really be beneficial." (179)
					"And in general, at least where I'm at [my program] has also been very accepting. I never felt any prejudice from my colleague. And my program also has a lot of international graduates, so it's basically the UN at this point. And we've been doing really well with each other, so overall I don't really have any issue I don't know. Having a lot of different culture in the program definitely helps getting other applicants more interested in bringing a culture diverse program." (166)
					"I'll say being gay, being a woman. I think that you just have to deal with extra shit. I think that we probably experience a little bit more because of just all the extra variables we have to deal with, all of the extra things we kind of have to worry about, either hiding our identities or having to stay cognizant of, "Oh, is this person going to say something to me because I'm gay? Is this patient not going to think I'm competent enough to be their doctor because I'm a woman," stuff like this. Some things that necessarily male counterparts or people who are straight don't necessarily have to deal with." (73)
3. Discrimination in the Healthcare system	*n* = 7	A.	Interactions with Patients & their Families	Interactions where patients and their families perpetrated discrimination and harassment towards residents with a variety of responses from faculty and staff.	*"I've had patients comment on my race. That was a very bad interaction, but it was only one time where the patient was kind of saying, you don't care because you're this race and I'm this race and you guys only see these other races. And so that's why you don't care about my race. And it was a pretty hostile interaction, but that patient left the clinic afterwards. So, and our clinic has a pretty good protection system. During that interaction, I was able to call my MA [Medical Assistant] who was a very experienced MA in the clinic. She came in, took me out and then she walked me through how to report this to our clinic manager and had the document and the chart. And then she put in her documentation as well." (68)*
					[While rounding with the team,] "a patient states, "Can she stay with me today? I could use a pretty little thing like that in my room." No one said anything and laughed it off. I expected someone to kind of say something." (63)
					"Within my residency, I haven't dealt with harassment or discrimination. Everybody's really supportive. I think anytime that we've dealt with it from the patient standpoint, everybody in my residency program has been super supportive and very intolerant of that. I had a patient who referred to me, and one of my co-residents, and some of our nurses, and MAs as the N word. And my White attending was like, 'Absolutely not.' And the patient got dismissed from our practice. He was just like, 'We are not going to stand for that, absolutely not.' And that was a very refreshing moment for me. It really made me feel, I made a good decision ranking the program the way that I had. Because I feel safe here when it comes to certain stuff that within my program." (99)
	n = 10	B.	Interactions with the Hospital	Interactions both positive and negative with the hospital	*"I think generally the culture here overall is pretty strong. I think our GME department is pretty supportive of all of our programs. I think our hospital has a good reputation of*

			System	system in residency regarding DEI, treatment of residents, and lack of staffing etc.	*patient care even amongst the community. And those are protective factors against things like that [burnout, discrimination, harassment etc.].” (42)* *“You have a bunch of different people there, so you don't get necessarily blatant discrimination, but the small stuff is still there that gets through the cracks. I don't feel like they necessarily recognize some minority groups as much as others. I told you that I feel like the LGBTQ community is probably the weird one that people don't necessarily want to talk about or be associated with because I don't know.” (73)* *“I think we all... I think there's a general, especially the faculty, there's a general consensus. You get the vibe that there's no discrimination tolerance. And I think, and partially to the hospital, the work environment, the hospital's constantly doing training for employees, which is like, well, duh, that's a given. But then I think also it's the cultural and everyone's, it's kind of just a given that to just accept everyone, and we judge people based on their work ethic, not on their race.” (81)* *“Somebody have to pay for that, and of course we residents are a less expensive workforce for the health system. For them, it's more convenient to have residents that hire graduates or specialty doctors in certain areas. It's something that for us is convenient because we get the training that we need, but at the same time, it's like, ‘Yes. We are serving you. You are the one that is paying us, but it doesn't give you the right to mistreat us.’ That's when I think the conflict comes [between residents and hospital systems].” (176)*
4. Wellness	*n* = 11	A.	Venues for Wellness	State of wellness programing in residency with varied efficacy.	*“I think the absolute worst thing that, residencies will combat burnout with a lecture about burnout. Which I think is the stupidest thing I've ever heard of in my life. So sitting in a lecture room listening to a lecture about burnout the stupidest thing, the really stupidest thing I've ever heard of in my life. But it should be a half a day that you go home and just get your oil changed or sit down and have an afternoon to sleep. That should be what combating burnout looks like. Or even, if you want to do a lecture about burnout, let them, let the residents go home and listen to it from the comfort of their bed, and they'll probably all fall asleep, but...” (63)* *“One thing I think they do a good job on is promoting wellness. Like we get wellness days every quarter. We get like a day off, a weekday off. No obligation, no clinical duties, no didactics. So, I look forward to having that day off, because you can like schedule doctor's appointments. You can just take care of yourself. A lot of programs don't have that. We also have a full day of didactics, which a lot of programs, they only have a half day. So, a full day really makes a difference.” (179)* *“We have a committee designed to help us with wellness in its many forms, including efficiency. This year in particular, our faculty have been, I think, more aware of things that residents who identify as a minority group have experienced. And while they may not understand it perfectly, they're willing to try. And that felt better.” (19)*
	n = 5				

		B.	Legacy Effects	Treatment from faculty related to how things were done when they were students to how they are done currently.	*“Listened to. I like to be listened to. When they ask for our feedback, not just doing it to check off a box, but actually implementing the things that we are recommending, or at least considering implementation. Promoting an atmosphere that is open to change, because residency today shouldn't be like what it was 20 years ago, 40 years ago. So actually not staying in this mindset that, "Oh, if I had to do it, you have to do it too. So really being open-minded and learning to grow and make things easier for residents so that they can be in a conducive learning environment, versus just using them as a workhorse or for work.” (179)* *“Then the attendings will always say, ‘Oh, you guys have it so easy these days, we had to do, we had to spend over 24 hours in the hospital and we had to do this many hours. You guys have an 80 hour cap. You should be thankful.’ They also didn't have EPIC [Electronic Health Record] and have to jump through a gazillion more loops that we have to jump through. So that, it's just constant putting down by the older attendings, I think is just so unnecessary.” (63)* *“Acknowledging that residents actually do a lot of work. I think there's still a little bit of, I don't know. I think it kind of is a weird thing when we talk about how much we work in front attendings. Some attendings, maybe because they feel like they work even harder. So, it's like you shouldn't be complaining about anything, but attendings who do acknowledge, who are recently grad year residents when they acknowledge it, it just feels so much better. Like they understand.” (68)* *“…Then when I was on for seven weeks in a row, on inpatient, they were like, ‘Well, you can do it. I know you can do it because I did it too.’ And it's like, well that's great. But just a few months ago you told me, ‘Oh, we want to make sure that we're here and supporting you when you feel burned out. I want to make sure you feel like you can reach out to us.’, Three months later, I'm like, ‘Hey, I'm really tired. I've been on seven weeks in a row.’ And it was like, ‘well suck it up.’” (81)*
5. Connection	*n* = 11	A.	Compassion/ Connection with Patients	How resident’s intersectional identity relates to patient care, and the consequences of discrimination and harassment on attitudes towards patients who perpetrate these actions.	*"In some cases, I might be a little protective if I see somebody I identify with, I think it is easier for me to show up during those times where I might otherwise not feel like I could be there emotionally " (19)* *“I think I try to understand people better. I'm compassionate. I feel I have a much easier time when I see a patient in a clinic encounter who may not look like me at all. I sense that they probably think the same thing. Like, ‘Oh, she doesn't look like me, but she's doing this,’ so they feel more comfortable with me. I think that helps because it just automatically creates more trust and comfort in those patient encounters.” (59)* *“I think it… definitely helps our patients to be cared for by people that look like them, talk like them, maybe even think like them. And I think that that really helps. And then inherently too, I think a lot of the staff that work at where I work choose to do so because they want to work with a certain population or they want to work with people who they can relate to, people that can feel comfortable with, people they feel at home with. So, I think it's just not*

				only staff, but it's just our patient population which we have the privilege to take care of. But urban inner city populations are unique in and of themselves too. And of course, most people don't live in the urban inner city, so it's nice that now we have this, but then the reality is most of us residents will not be staying in such environment." (123) *When I had certain patients who didn't respect me because of my age and gender, it would definitely make me feel less compassionate for them, make me less willing to work with them, and less willing to place them as the center of the treatment team. (179)* *"If a certain individual is combative or decides to attack you based off factors like that [gender, sexual orientation, race etc.], then it could lead to that burnout, compassion fatigue in a sense that you don't feel as indebted to them or feel like you necessarily want to go the extra mile for them simply because they don't value you as for who you are." (42)*
n = 9	B.	Connection with Colleagues	Increased ability to connect related to intersectional identity.	*"If some other resident also Asian, also gay or bisexual, LGBTQIA, etc. I identify with them a little better, but overall, we are all just residents suffering through the same thing. So, we have shared trauma to link us here. (166)* *"I feel like being a minority in that sense, it kind of makes you more interesting, I guess. Yeah, and then in residency, again, being gay, you meet other gay residents, gay attendings, stuff like this, and it's kind of like an unformal team you have there... In general, in society, you have more of a sense of community because of me being gay." (73)* *"I feel like having that human aspect of burnout brings people together and you form that bond, connection, feeling whatever, it is whatever you want to call it… Meaning burnout is a catalyst to connection." (47)*

CHAPTER 6: RESIDENCY EXPERIENCES OF BURNOUT, COMPASSION FATIGUE, DISCRIMINATION, AND HARRASSMENT: CONTRIBUTIONS AND RECOMMENDATIONS

The focus of this chapter is to summarize the contributions to research, grounded in the findings from this dissertation, and translate the findings into practical recommendations. This chapter includes a: (a) review of previous chapters one through five, (b) discussion of how this dissertation is both rooted in and contributes to the field of Medical Family Therapy, (c) review of the contributions to research specifically around diversity in medical education, and (d) justification for and inclusion of a fact sheet for data related to historically marginalized and systemically oppressed residents' experiences in residency, as well as recommendations for continued improvement for residency education.

Dissertation Review

This dissertation opened with a chapter focused on the systemic barriers for historically marginalized and systemically oppressed medical students as they navigate their medical education and launch into a diverse physician workforce. This article is published in a special issue on Medical Family Therapy in the Journal of Contemporary Family Therapy (Davis et al., 2022). This article provides Medical Family Therapist's (MedFTs) a conceptual model and practical recommendations committed to diversity, equity, and inclusion (DEI) in the healthcare system, including in the recruitment and retention of a diverse physician workforce. These recommendations are given through the lens of the Four World View (Peek, 2008) and take into account the influence of intersectionality (Crenshaw, 1989), professional competencies (ACGME, 2021; AAMFT, 2018), and stage in professional education or career development. This chapter provides MedFTs at all stages of their development and areas of focus greater knowledge of the medical education system so that they may better advocate for the recruitment and retention of a diverse physician workforce in their spheres of influences.

While Chapter 1, discusses the role of MedFTs in improving retention and recruitment of a diverse physician population, Chapter 2 changes direction to discuss how patient-provider relationships can enhance health outcomes for LGBTQ+ patients. This article provides a glimpse into the health needs of LGBTQ+ patients and what barriers exist in their care. Attention is given to this issue through a scoping review of the literature to answer the question, “What are the mechanisms that improve patient-provider relationships relevant to LGBTQ+ patient provider dyads?” Three themes were identified through the literature to improve patient provider relationship including: health beliefs, trust, and shared decision making. These themes were analyzed with the needs of LGBTQ+ patients and providers in mind, then were used alongside the Four World View (Peek, 2008) to provide recommendations for the clinical, operational, financial, and training/education worlds of the healthcare system.

Chapter 3 delivers a systematic review focusing on the role of burnout among medical residents through an intersectional lens. This review includes studies (N =16) published on burnout in the context of medical residency, specifically with historically marginalized/systemically oppressed residents (e.g., marginalization due to race/ethnicity, sexual orientation, or gender identity). This article unveils the lack of representation in previously published samples (i.e., no representation of LGBTQ+ residents as participants) and the inadequate inclusion of demographics that could offer insight into intersectionality (e.g., study design and analyses did not simultaneously consider race/ethnicity, gender identity, and sexual orientation).

The collection of research gathered from the previous chapters contributed to the design of the original research study outlined in Chapter 4. The methodology includes a quantitatively informed qualitative phenomenological approach to research exploring how historically marginalized and systemically oppressed residents experience burnout, compassion fatigue, discrimination, and harassment in their programs. This approach includes a quantitative survey for residents working in the United States and comprises demographic, open ended, and close ended questions. In addition, respondents could opt in to participate in a qualitative interview to more fully capture the phenomenon of historically marginalized and systemically oppressed residents' experiences.

Finally, Chapter 5 presents original research contributing to the literature through a phenomenological study accompanied by relevant quantitative data related to historically marginalized and systemically oppressed residents' experiences. This design includes 184 quantitative respondents and 20 qualitative interviews to ensure that representation was reflected by race/ethnicity, gender identity, and sexual orientation. The qualitative interviews were analyzed using Colaizzi's method of descriptive inquiry (1978), and five themes and 14 subthemes were found through the analysis including (a) Reporting Discrimination and Harassment, (b) Additive Stress, (c) Discrimination in the Healthcare System, (d) Wellness, and (e) Connection. These themes and subthemes were organized and presented through the lens of intersectionality with recommendations for further research and for residency programs to improve the wellbeing of historically marginalized/systemically oppressed residents.

Contribution to Medical Family Therapy

Medical Family Therapy is defined by experts in the field as "healthcare sourced from a BPSS perspective and Marriage and Family Therapy, but also informed by systems theory. The practice of MedFT spans a variety of clinical settings with a strong focus on the relationship of the patient and the collaboration between and among the healthcare providers and the patient. MedFTs are endorsers of patient and family agency and facilitators of healthy workplace dynamics" (Hodgson et al., 2014). This dissertation is rooted in this definition of MedFT and has come to fruition through many core elements incapsulated in the definition of MedFT, including systems theory (von Bertalanffy, 1968), healthy workplace dynamics, and patient provider relationships. In addition, this dissertation focuses on a chasm in MedFT and medical residency research, by incorporating the Four World View (Peek, 2008) and intersectionality (Crenshaw, 1989) throughout each chapter.

In particular, this dissertation highlights specific ways that MedFTs can improve in DEI in the advocacy of a diverse physician workforce (See Chapter 1), improve health equity for LGBTQ+ patients through improved patient-provider relationships (See Chapter 2), conduct inclusive research including the intersectional identities of participants, specifically in medical residency (See Chapter 3), and improve wellbeing and training/educational experiences for medical residents (See Chapter 5). Furthermore, this dissertation urges MedFTs to take an active role in DEI at their institutions advocating for recruitment and retention of a diverse physician workforce and to advocate for the wellbeing of those with historically marginalized/systemically oppressed social locations.

Contributions to Science and Original Research

Beyond research that is focused on Medical Family Therapy, this dissertation (from start to finish) makes a contribution to science in collaboration with historically marginalized and systemically oppressed residents. In reviewing thousands of articles for the scoping and strategic reviews included in his dissertation, it became clear that more research was needed to capture the ways in which gender identity, race, ethnicity, and sexual orientation intersected in the experiences of medical residents in their residency programs.

The original research, in Chapter 5, affords an opportunity to listen to and understand the narratives of those who by many intersections are in the most vulnerable of healthcare provider positions with often the least power to effect change. These participants also carry much of the burden of clinical care. Medical residents, and more specifically historically marginalized and systemically oppressed residents, deserve to have their voices heard on what is enhancing and what is endangering the sustainability of their future in healthcare. The opportunity to listen and present their experiences into published manuscripts for the world to read, is a privilege that I strive not to forget. The core message that I have gained through my time listening to the narratives of historically marginalized and systemically oppressed residents is their dedication to patient care at the expense of their own health and wellbeing. My hope is that this contribution to science will further exemplify historically marginalized and systemically oppressed residents' commitment and dedication to their work, while also solidifying the need for institutional reform needed by residency programs and hospital systems to protect the wellbeing of their physicians. The many stories of microaggressions, blatant discrimination and harassment, and the fear of repercussions of reporting these instances necessitates this contribution of their experiences to the body of literature, as well as recommendations that demand improvements in healthcare and residency systems for patients and providers alike.

Recommendations

Residents' responses accompanied by the quantitative data tell a profound story about what is occurring regarding DEI and discrimination/harassment reporting in residency. In particular, 80.8% of residents report that their residency supports them as a historically marginalized or systemically oppressed resident, yet 60% of the same residents' report instances of discrimination and harassment in residency. In addition, nearly 50% of residents report that they did not know if there were repercussions in place for those who perpetrated these actions. Furthermore, 50% of those who participated in the qualitative interview share concerns around reporting instances of discrimination and harassment. These data show that though most residents feel supported in their residencies there are inconsistencies in how instances of discrimination and harassment are handled across residencies. It is due to these inconsistencies that a Fact Sheet (see Figure 1) was created. The intention of this Fact Sheet is to offer research-informed strategies for residencies to recognize and respond to instances of discrimination and harassment, and better support residents regardless of their social location or rotation.

Future Research

In addition to the need for continued research with improved methodologies, researchers must be more accountable to attending to intersectionality in their sampling, research design, and analyses. Future research is needed to investigate tangible ways that residency programs can improve their DEI initiatives, policies, and procedures related to discrimination and harassment. Residencies have room under ACGME guidelines to create a DEI activities that works best for their program and institution, but there are few resources available with ways to make that a reality or to track their effectiveness. More research is needed to better understand ways that some residents are getting the support they need around discrimination and harassment and others are not. Meanwhile, residencies need tangible steps they can take to improve this issue. Attached (See Figure 1) is a Fact Sheet that provides recommendations for residency programs based on the data from the quantitatively informed qualitative study in Chapter 5. While more research is needed in this area, this Fact Sheet can act as a guideline of ways residencies can improve their procedures around discrimination and harassment reporting in the interim.

Summary

The focus of this dissertation addresses DEI in the healthcare system through multiple avenues (e.g., medical education, patient-provider relationships, burnout, compassion fatigue, discrimination, and harassment). With trends showing an increase in the deficit of medical providers in the coming years, the recruitment and retention of a representative physician workforce becomes an utmost priority for the health of the healthcare system. Through the original research put forward through this dissertation, the voices of historically marginalized and systemically oppressed residents are heard and put forward in the body of literature to inform residency training related to burnout, compassion fatigue, discrimination, and harassment.

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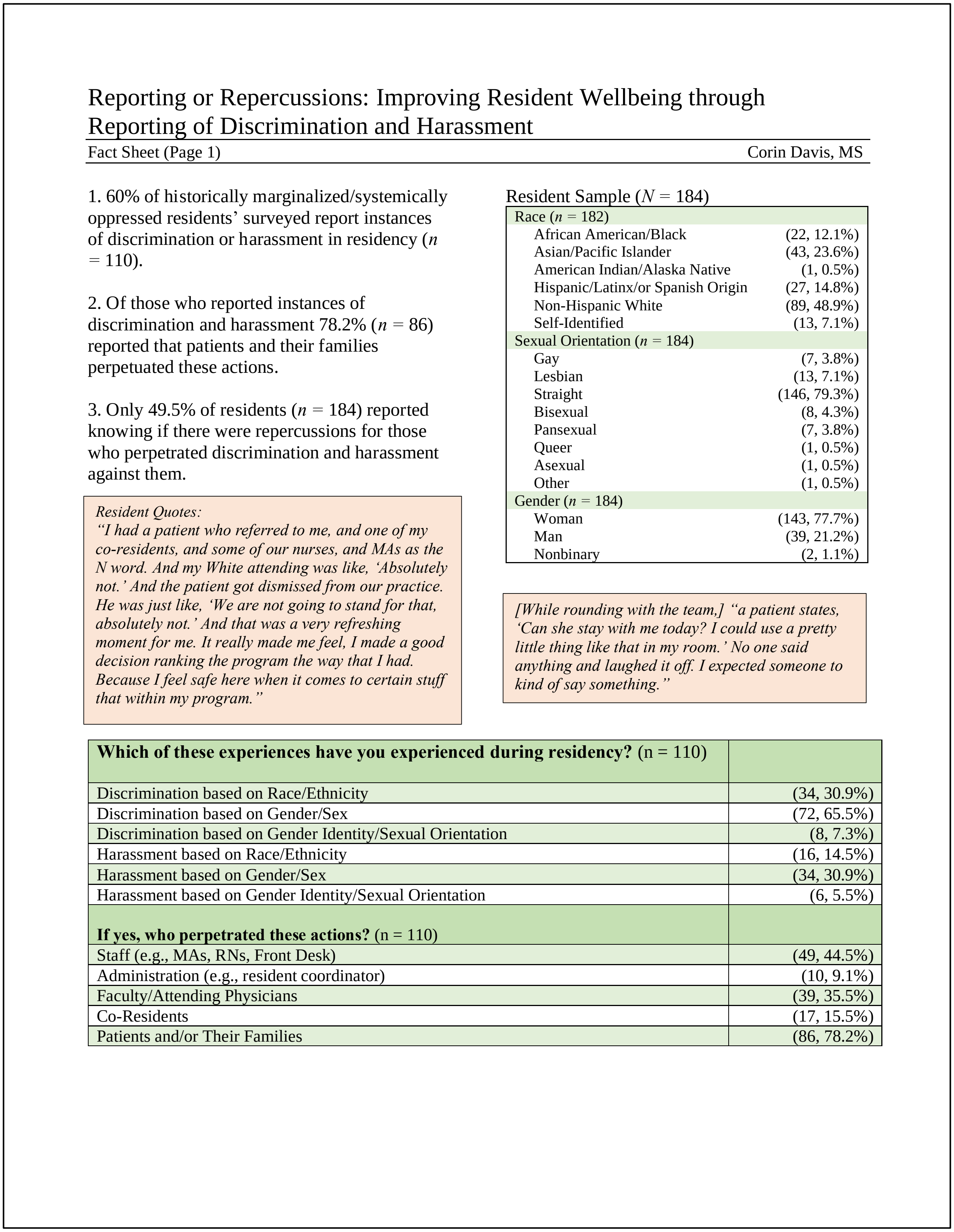


Reporting or Repercussions: Improving Resident Wellbeing through Reporting of Discrimination and Harassment

Fact Sheet (Page 1) Corin Davis, MS

1. 60% of historically marginalized/systemically oppressed residents' surveyed report instances of discrimination or harassment in residency (*n* = 110).

2. Of those who reported instances of discrimination and harassment 78.2% (*n* = 86) reported that patients and their families perpetuated these actions.

3. Only 49.5% of residents (*n* = 184) reported knowing if there were repercussions for those who perpetrated discrimination and harassment against them.

Resident Quotes:
"I had a patient who referred to me, and one of my co-residents, and some of our nurses, and MAs as the N word. And my White attending was like, 'Absolutely not.' And the patient got dismissed from our practice. He was just like, 'We are not going to stand for that, absolutely not.' And that was a very refreshing moment for me. It really made me feel, I made a good decision ranking the program the way that I had. Because I feel safe here when it comes to certain stuff that within my program."

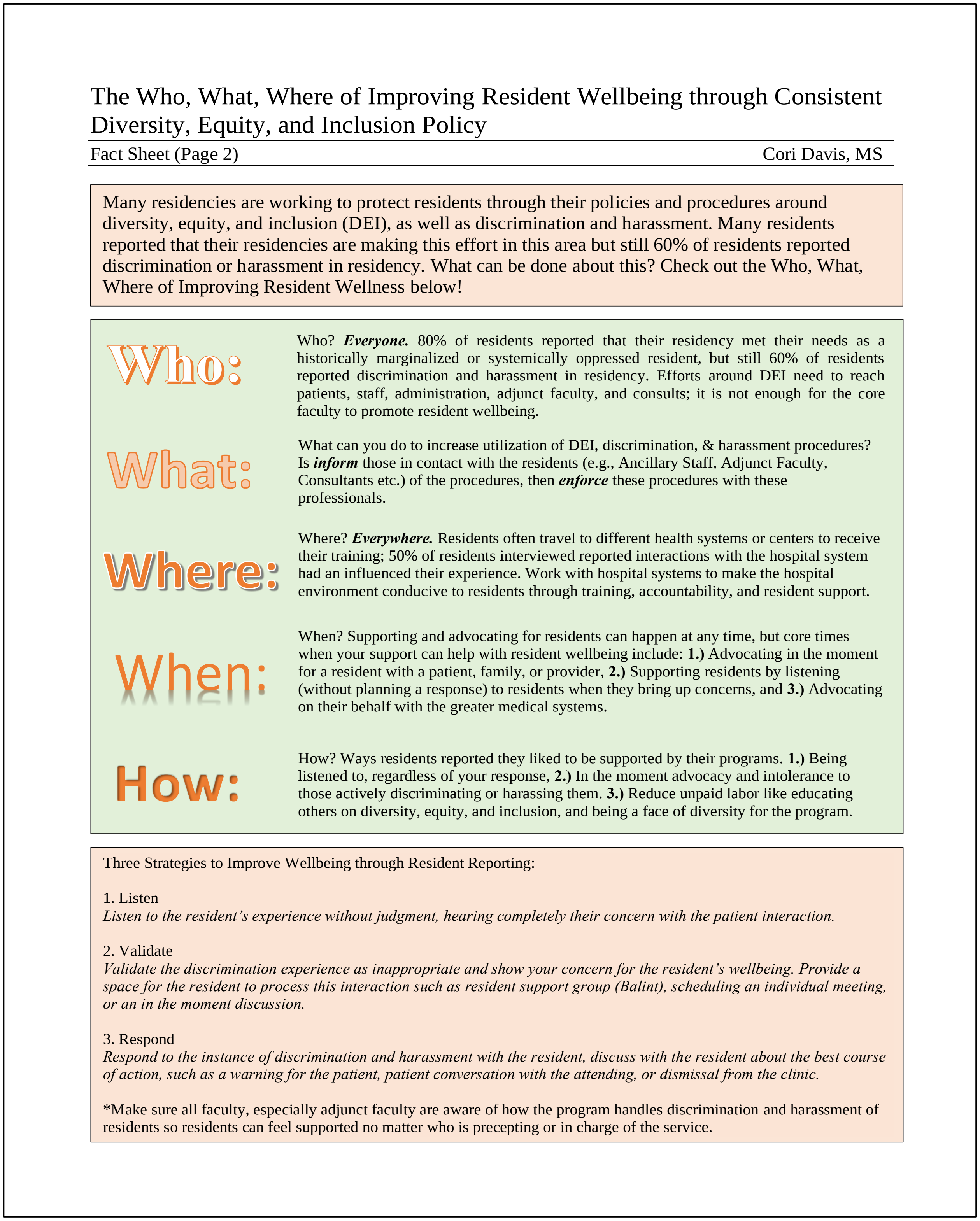
Resident Sample (*N* = 184)

Race (*n* = 182)	
African American/Black	(22, 12.1%)
Asian/Pacific Islander	(43, 23.6%)
American Indian/Alaska Native	(1, 0.5%)
Hispanic/Latinx/or Spanish Origin	(27, 14.8%)
Non-Hispanic White	(89, 48.9%)
Self-Identified	(13, 7.1%)
Sexual Orientation (*n* = 184)	
Gay	(7, 3.8%)
Lesbian	(13, 7.1%)
Straight	(146, 79.3%)
Bisexual	(8, 4.3%)
Pansexual	(7, 3.8%)
Queer	(1, 0.5%)
Asexual	(1, 0.5%)
Other	(1, 0.5%)
Gender (*n* = 184)	
Woman	(143, 77.7%)
Man	(39, 21.2%)
Nonbinary	(2, 1.1%)

[While rounding with the team,] "a patient states, 'Can she stay with me today? I could use a pretty little thing like that in my room.' No one said anything and laughed it off. I expected someone to kind of say something."

Which of these experiences have you experienced during residency? (n = 110)	
Discrimination based on Race/Ethnicity	(34, 30.9%)
Discrimination based on Gender/Sex	(72, 65.5%)
Discrimination based on Gender Identity/Sexual Orientation	(8, 7.3%)
Harassment based on Race/Ethnicity	(16, 14.5%)
Harassment based on Gender/Sex	(34, 30.9%)
Harassment based on Gender Identity/Sexual Orientation	(6, 5.5%)
If yes, who perpetrated these actions? (n = 110)	
Staff (e.g., MAs, RNs, Front Desk)	(49, 44.5%)
Administration (e.g., resident coordinator)	(10, 9.1%)
Faculty/Attending Physicians	(39, 35.5%)
Co-Residents	(17, 15.5%)
Patients and/or Their Families	(86, 78.2%)

Figure 1. Fact Sheet



The Who, What, Where of Improving Resident Wellbeing through Consistent Diversity, Equity, and Inclusion Policy

Fact Sheet (Page 2) Cori Davis, MS

Many residencies are working to protect residents through their policies and procedures around diversity, equity, and inclusion (DEI), as well as discrimination and harassment. Many residents reported that their residencies are making this effort in this area but still 60% of residents reported discrimination or harassment in residency. What can be done about this? Check out the Who, What, Where of Improving Resident Wellness below!

Who:

Who? ***Everyone.*** 80% of residents reported that their residency met their needs as a historically marginalized or systemically oppressed resident, but still 60% of residents reported discrimination and harassment in residency. Efforts around DEI need to reach patients, staff, administration, adjunct faculty, and consults; it is not enough for the core faculty to promote resident wellbeing.

What:

What can you do to increase utilization of DEI, discrimination, & harassment procedures? Is ***inform*** those in contact with the residents (e.g., Ancillary Staff, Adjunct Faculty, Consultants etc.) of the procedures, then ***enforce*** these procedures with these professionals.

Where:

Where? ***Everywhere.*** Residents often travel to different health systems or centers to receive their training; 50% of residents interviewed reported interactions with the hospital system had an influenced their experience. Work with hospital systems to make the hospital environment conducive to residents through training, accountability, and resident support.

When:

When? Supporting and advocating for residents can happen at any time, but core times when your support can help with resident wellbeing include: **1.)** Advocating in the moment for a resident with a patient, family, or provider, **2.)** Supporting residents by listening (without planning a response) to residents when they bring up concerns, and **3.)** Advocating on their behalf with the greater medical systems.

How:

How? Ways residents reported they liked to be supported by their programs. **1.)** Being listened to, regardless of your response, **2.)** In the moment advocacy and intolerance to those actively discriminating or harassing them. **3.)** Reduce unpaid labor like educating others on diversity, equity, and inclusion, and being a face of diversity for the program.

Three Strategies to Improve Wellbeing through Resident Reporting:

1. Listen
Listen to the resident's experience without judgment, hearing completely their concern with the patient interaction.

2. Validate
Validate the discrimination experience as inappropriate and show your concern for the resident's wellbeing. Provide a space for the resident to process this interaction such as resident support group (Balint), scheduling an individual meeting, or an in the moment discussion.

3. Respond
Respond to the instance of discrimination and harassment with the resident, discuss with the resident about the best course of action, such as a warning for the patient, patient conversation with the attending, or dismissal from the clinic.

*Make sure all faculty, especially adjunct faculty are aware of how the program handles discrimination and harassment of residents so residents can feel supported no matter who is precepting or in charge of the service.

Figure 1. Fact Sheet

APPENDIX A: IRB APPROVAL

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · rede.ecu.edu/umcirb/

Notification of Exempt Certification

From: Social/Behavioral IRB
To: Corin Davis
CC: Angela Lamson
Corin Davis
Date: 10/15/2021
Re: UMCIRB 21-001843
Burnout in Minority Residents

I am pleased to inform you that your research submission has been certified as exempt on 10/13/2021. This study is eligible for Exempt Certification under category # 2c.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document	Description
Email 1 (updated).docx(0.02)	Recruitment Documents/Scripts
Email 2 (updated)_.docx(0.02)	Recruitment Documents/Scripts
ExperiencesOfMinorityMedicalRe-4.pdf(0.01)	Data Collection Sheet
ExperiencesOfMinorityMedicalRe-5.pdf(0.01)	Consent Forms
Flyer 091021.pdf(0.01)	Recruitment Documents/Scripts
Grant Application(0.01)	Study Protocol or Grant Application
IncentiveInformation_QuantMeas.pdf(0.01)	Consent Forms
InformedConsentQual_QuantMeasu.pdf(0.01)	Consent Forms
Interview Guide(0.01)	Interview/Focus Group Scripts/Questions
Survey (0.01)	Surveys and Questionnaires

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX B: FLYER

Research Participants Needed

$10 Amazon Gift Card for Survey Participation

The Experiences of Historically Marginalized Medical Residents

Research Study seeking to learn more about the experiences of historically marginalized and systemically oppressed populations in Medical Residency (UMCIRB 21-001843).

Do you identify as historically marginalized in your racial/ethnicity, as part of the LGBTQ+ community, or as a woman and are you a current medical resident? We want to hear from you! Receive a $10 Amazon Gift Card for filling out a 30 minute survey!

To participate in the survey:
https://redcap.ecu.edu/surveys/?s=JHW4CD7FX38DC9CN

Please contact Cori Davis (PI) daviscor19@students.ecu.edu with any questions or to get more information.

APPENDIX C: INFORMED CONSENT (SURVEY)

Informed Consent to Participate in Research

Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study: Understanding Experiences of Historically Marginalized and Systemically Oppressed Medical Residents

Principal Investigator: Corin Davis, MS (Person in Charge of this Study)
Institution, Department or Division: East Carolina University, College of Health and Human Performance
Email Address: daviscor19@students.ecu.edu
Telephone #: 918-289-4207

Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

Why am I being invited to take part in this research?

The purpose of this research is to understand the experiences of historically marginalized and systemically oppressed (racial/ethnic groups, LGBTQ, or women in medicine) medical residents. You are being invited to take part in this research because you are a medical resident. The decision to take part in this research is yours to make. By doing this research, we hope to learn how to better support historically marginalized and systemically oppressed medical residents.

If you volunteer to take part in this research, you will be one of about 200 people to do so.

Are there reasons I should not take part in this research?

You are eligible to take part in this research if you are a current medical resident. You should not take part in the study if you are no longer in a medical residency (took a break, quit, graduated).

What other choices do I have if I do not take part in this research?

You can choose not to participate.

Where is the research going to take place and how long will it last?

The research study is in the form of a questionnaire. There are multiple choice and short answer questions and should take 30-60 minutes to complete.

What will I be asked to do?

You will be asked to do the following: Once you start the questionnaire you will be asked demographic information (no identifying information will be asked such as name, birth date, or program) and then asked a series of short answer questions about experiences that you may or may not have experiences in medical residency. You will be asked to answer them to the best of your ability based on your lived experiences. The questionnaire will include two standardized measures to assess quality of life in medical residency.

What might I experience if I take part in the research?

We do not know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. We don't know if you will benefit from taking part in this study. There may not be any personal benefit to you, but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?

Yes, you will receive a $10 amazon gift card for participating in the survey, and an additional $25 dollar amazon gift card for participating in an individual interview (30 min to 1 hour). To participate in an individual interview (conducted virtually), indicate interest by answering yes to the question asking if "Would you like to be interviewed to gather more information about your experiences?"

Will it cost me to take part in this research?

It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?

ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. Please note, that in this study you will not provide identifying information such as name, date of birth, or program to keep your identity as protected as possible. With your permission, these people may use your private information to do this research:

- People designated by research team, including Primary Investigator, Cori Davis, and ECU faculty.

How will you keep the information you collect about me secure? How long will you keep it?

Data will be kept in an encrypted a file and deidentified data for a minimum of three years. Data will be de-identified by researchers and all identified data will be destroyed.

What if I decide I don't want to continue in this research?

You can stop at any time. There will be no consequences if you stop or decline to answer any question and you will not be criticized.

Who should I contact if I have questions?

The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator, Cori Davis, at 918-289-4207 (weekdays, between 9-5 EST). If you have questions about your rights as someone taking part in research, you may call the University & Medical Center Institutional Review Board (UMCIRB) at phone number 252-744-2914 (days, 8:00 am-5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director for Human Research Protections, at 252-744-2914.

I have decided I want to take part in this research. What should I do now?

The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

____

Participant's Name (PRINT) **Signature** **Date**

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above, and answered all of the person's questions about the research.

____

Person Obtaining Consent (PRINT) **Signature** **Date**

APPENDIX D: INFORMED CONSENT (INTERVIEW)

Informed Consent to Participate in Research

Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study: Understanding Experiences of Historically Marginalized and Systemically Oppressed Medical Residents

Principal Investigator: Corin Davis, MS (Person in Charge of this Study)
Institution, Department or Division: East Carolina University, College of Health and Human Performance
Email Address: daviscor19@students.ecu.edu
Telephone #: 918-289-4207

Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

Why am I being invited to take part in this research?

The purpose of this research is to understand the experiences of historically marginalized and systemically oppressed (racial/ethnic groups, LGBTQ, or women in medicine) medical residents. You are being invited to take part in this research because you are a medical resident.The decision to take part in this research is yours to make. By doing this research, we hope to learn how to better support historically marginalized and systemically oppressed medical residents.

If you volunteer to take part in this research, you will be one of about 30 people to do so.

Are there reasons I should not take part in this research?
You are eligible to take part in this research if you are a current medical resident. You should not take part in the study if you are no longer in a medical residency (took a break, quit, graduated).

What other choices do I have if I do not take part in this research?
You can choose not to participate.

Where is the research going to take place and how long will it last?
The research study is in the form of 60-90 minute virtual, individual interview conducted via Webex (a HIPAA-compliant video software approved by the university's IRB).

What will I be asked to do?
You will be asked a variety of open-ended questions about your residency experience by the interviewer. You can answer as much or little as you would like for each question, and you will

be able to add any additional information you would like following the completion of the interview.

What might I experience if I take part in the research?

We do not know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. We don't know if you will benefit from taking part in this study. There may not be any personal benefit to you, but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?

Yes, you will receive a $25 dollar amazon gift card for participating in an individual interview in addition to the $10 gift card you received for participation in the survey.

Will it cost me to take part in this research?

It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?

ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. Please note, that in this study you will not provide identifying information such as name, date of birth, or program to keep your identity as protected as possible. With your permission, these people may use your private information to do this research:

- People designated by research team, including Primary Investigator, Cori Davis, and ECU faculty.

How will you keep the information you collect about me secure? How long will you keep it?

Data will be kept in an encrypted a file and deidentified data for a minimum of seven years. Data will be de-identified by researchers and all identified data will be destroyed.

What if I decide I don't want to continue in this research?

You can stop at any time. There will be no consequences if you stop or decline to answer any question and you will not be criticized.

Who should I contact if I have questions?

The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator, Cori Davis, at 918-289-4207 (weekdays, between 9-5 EST).

If you have questions about your rights as someone taking part in research, you may call the University & Medical Center Institutional Review Board (UMCIRB) at phone number 252-744-2914 (days, 8:00 am-5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director for Human Research Protections, at 252-744-2914.

I have decided I want to take part in this research. What should I do now?
The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

Participant's Name (PRINT) **Signature** **Date**

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above and answered all of the person's questions about the research.

Person Obtaining Consent (PRINT) **Signature** **Date**

APPENDIX E: SURVEY

Thank you for your participation in this study. The purpose of this study is to get a better understanding of historically marginalized and systemically oppressed (i.e., members of the LGBTQ+ community, racial/ethnic groups of color, and women in medicine) voices in medical residency. Please remember that this study has been approved by the institutional review board at East Carolina University (IRB #21-001843), and that the information you share is confidential and will be deidentified (e.g., we will be excluding any identifying information such as names of people or places). Any information given for this study will be used to further research for minoritized medical residents and not for profit or gain of any person or institution. If you have further questions on confidentiality of the project that were not addressed in the informed consent, please reach out to the primary investigator, Cori Davis (daviscor19@students.ecu.edu).

The questionnaire will begin by asking demographic information, followed by questions about several different experiences in residency, and will end with validated survey measures. Please answer as many of the questions as you are able. If there is anything that was not addressed in the questionnaire that you feel is important for us to know to better understand your experiences in medical residency, please add in this information in the place allotted at the conclusion of the questionnaire.

Demographics:

Year in Residency: PG1 PG2 PG3 PG4 PG5 PG6 Other_______

Age: _______

Gender: Male Female Nonbinary Trans Male Trans Female Preferred ________

Preferred Pronouns: he/him she/her they/them she/they he/they Preferred_________

Do others in your residency experience (i.e., coresidents, attendings, staff/administration, patients and their families) know your preferred pronouns? Y/N

Are your preferred pronouns used by those around you in residency? Y/N

Sexual Orientation: Gay Lesbian Bisexual Queer Straight Preferred ________

Do others in your residency know your Sexual Orientation? Y/N

Is Sexual Orientation/Gender Identity something that can be discussed in your program without fear of repercussions? Y/N

Race: African American/Black Asian/Pacific Islander American Indian/Alaska Native White

Share your race in your own words ___________

Ethnicity: Hispanic/Latinx Y/N

Residency Type: _______________

Medical Degree: MD or DO

Was your residency match your first choice Y/N

Does your Program Director identify as Male, Female, Nonbinary, Trans Male, or Trans Female

Do you feel that your residency provides you the resources you need to your health and wellness? Y/N

Do you feel that your residency meets your needs as a historically marginalized and systemically oppressed (i.e., members of the LGBTQ+ community, racial/ethnic groups of color, and women in medicine) resident? Y/N

Discrimination is defined as the: “unjust or prejudicial treatment of different categories of people or things, especially on the grounds of race, age, or sex.” (Oxford Dictionary, 2021)

Harassment is defined as, “unwelcome conduct that is based on race, color, religion, sex (including pregnancy), national origin, age (40 or older), disability or genetic information.” (U.S. Equal Opportunity Employment Commission, 2021)

Which of these experiences have you experienced in your time in residency? (Click all that apply)

- Racial/Ethnic Discrimination
- Discrimination based Gender/Sex
- Discrimination based on Gender Identity/Sexual Orientation
- Sexual Harassment
- Harassment based on Race/Ethnicity
- Harassment based on Gender Identity/Sexual Orientation

If yes. Please specify who perpetrated these actions? (Click all that apply)

- Staff (e.g., Mas, RNs, Front Desk)
- Administration (e.g., residency coordinator)
- Attendings/Faculty
- Coresidents
- Patients and/or their Families
- Other_______

Are there repercussions in place for perpetrators of harassment and discrimination in your residency? Y/N

Are you able to report/address instances of discrimination/harassment without fear of repercussions for yourself? Y/N

Do you feel that historically marginalized and systemically oppressed identity (i.e., members of the LGBTQ+ community, racial/ethnic groups of color, and women in medicine) is related to experiences of harassment/discrimination in residency? Y/N

Burnout is defined as, “a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of **exhaustion**, **cynicism** (i.e., role negativity, feeling detached, depersonalization, feeling calloused), and **inefficacy** (i.e., feelings of lack of competence, achievement or workplace satisfaction).” (Baigent, 2018; Maslach et al., 2001)

Compassion fatigue is a broadly defined concept that can include **emotional**, **physical**, and **spiritual** distress in those providing care to another. It is associated with caregiving where people are experiencing significant emotional or physical pain and suffering (Compassion Fatigue Awareness Project, 2021).

Have you experienced burnout and/or compassion fatigue in residency? Y/N

Do you know someone in your residency who experiences burnout or compassion fatigue? Y/N

Can feelings of burnout/compassion fatigue be discussed openly in your residency without fear of repercussions? Y/N

Do you feel that experiences of burnout/compassion fatigue are impacted by discrimination/harassment in your experiences in residency? Y/N

Do you feel that historically marginalized and systemically oppressed identity (i.e., members of the LGBTQ+ community, racial/ethnic groups of color, and women in medicine) is related to experiences of burnout/compassion fatigue in residency? Y/N

Fill in the blank-

What would you say has been most detrimental to your well-being or growth during residency? (feel free to say more) What would you call this?

What has been most helpful to your well-being or growth during residency what would that be? (feel free to say more) What would you call this?

How would you like to be supported by your residency?

If you were to imagine a residency program that did not include burnout, compassion fatigue, harassment, or discrimination what do you think you would see happening in that context?

For each question, indicated the score that corresponds to your response.

0 = Never
1 = A Few Times Per Year
2 = Once a Month

3 = A Few Times Per Month
4 = Once a Week
5 = A Few Times Per Week
6 = Every Day

1. I feel emotionally drained by my work.
2. Working with people all day long requires a great deal of effort.
3. I feel like my work is breaking me down.
4. I feel frustrated by my work.
5. I feel I work too hard at my job.
6. It stresses me too much to work in direct contact with people.
7. I feel like I am at the end of my rope.
8. I feel I look aftrer certain patients impersonally, as if they were objects.
9. I feel tired when I get up in the morning and have to face another day at work.
10. I have the impression that my patients make me responsible for some of their problems.
11. I am at the end of my patients at the end of my work day.
12. I really don't care about what happens to some of my patients.
13. I have become more insensitive to people since I've been working.
14. I am afraid that this job is making me uncaring.
15. I accomplish many worthwhile things in this job.
16. I feel full of energy.
17. I am easily able to understand what my patients feel.
18. I look after my patients' problems very effectively.
19. In my work, I handle emotional problems very calmly.
20. Through my work, I feel that I have a positive influence on people.
21. I am easily able to create a relaxed atmosphere when I am with my patients.
22. I am refreshed when I have been close to my patients at work.

When you help people you have direct contact with their lives. As you may have found, your compassion for those you help can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a helper. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the **last 30 days**.

1 = Never
2= Rarely
3= Sometimes
4= Often
5= Very Often

1. I am happy.
2. I am preoccupied with more than one person I help.
3. I get satisfaction from being able to help people.
4. I feel connected to others.
5. I jump or am startled by unexpected sounds.
6. I feel invigorated after working with those I help.
7. I find it difficult to separate my personal life from my life as a helper.

8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I help.
9. I think that I might have been affected by the traumatic stress of those I help.
10. I feel trapped by my job as a helper.
11. Because of my helping, I have felt "on edge" about various things.
12. I like my work as a helper.
13. I feel depressed because of the traumatic experiences of the people I help.
14. I feel as though I am experiencing the trauma of someone I have helped.
15. I have beliefs that sustain me.
16. I am pleased with how I am able to keep up with helping techniques and protocols.
17. I am the person I always wanted to be.
18. My work makes me feel satisfied.
19. I feel worn out because of my work as a helper.
20. I have happy thoughts and feelings about those I help and how I could help them.
21. I feel overwhelmed because my work load seems endless.
22. I believe I can make a difference through my work.
23. I avoid certain activities or situations because they remind me of frightening experiences of the people I help.
24. I am proud of what I can do to help.
25. As a result of my helping, I have intrusive, frightening thoughts.
26. I feel "bogged down" by the system.
27. I have thoughts that I am a "success" as a helper.
28. I can't recall important parts of my work with trauma victims.
29. I am a very caring person.
30. I am happy that I chose to do this work.

Circle a single number between 1 (strongly disagree) and 10 (strongly agree) to indicate how much you personally agree or disagree with each statement based on how you are feeling **now.**

1. I have a good sense of what makes my life meaningful as a healthcare professional.
1 2 3 4 5 6 7 8 9 10
Strongly Disagree Mildly disagree Neutral Mildly agree Strongly Agree

2. All in all, I am inclined to feel that I am a failure in my work as a healthcare professional.
1 2 3 4 5 6 7 8 9 10
Strongly Disagree Mildly disagree Neutral Mildly agree Strongly Agree

3. Compared to before I went through residency I feel my religious/spiritual faith has strengthened.
1 2 3 4 5 6 7 8 9 10
Strongly Disagree Mildly disagree Neutral Mildly agree Strongly Agree

Nonbinary/Trans Participants Only

Instructions: Think about your experiences with Gender Identity. Please read each item and think of how many times this event has happened to you in the **PAST SIX MONTHS**.

0 = I did not experience this event.
1 = I experienced this event 1 time in the past six months.
2= I experienced this event 2 times in the past six months.
3= I experienced this event 3 times in the past six months.
4= I experienced this event 4 times in the past six months.
5= I experienced this event 5 or more times.

1. A loved one (e.g., family or friend) has told me that my gender nonconformity is just a phase.
2. Someone avoided sitting next to me in a public or government setting (e.g., DMV, courthouses, libraries).
3. Strangers and acquaintances have called me by the wrong personal pronoun.
4. I was told that I complain too much about societal discrimination against gender nonconforming people.
5. Someone told me that my transgender identity or my gender nonconformity was just a Phase.
6. Someone wanted to engage in a sexual act with me only because they view transgender people as exotic.
7. Someone avoided sitting next to me at a bar or restaurant because I am gender nonconforming.
8. A loved one (e.g. friend or family) has called me by the wrong personal pronoun.
9. Someone (e.g., family, friend, co-worker) has asked me personal questions about gender reassignment...
10. I was told that I complain too much about how people react to my gender nonconformity.
11. I was told that I made a family member uncomfortable because of my gender nonconformity or transgender identity.
12. Someone (e.g., family, friend, coworker) has asked me if I feel like I'm trapped in the body of another sex.
13. LGB people have told me that my gender nonconformity is just a phase.
14. Someone (e.g., family, friend, coworker) has asked me if I feel like I'm trapped in the body of another sex.

LGBQ Participants Only

Instructions: Think about your experiences with Sexual Orientation. Please read each item and think of how many times this event has happened to you in the **PAST SIX MONTHS**.

0 = I did not experience this event.
1 = I experienced this event 1 time in the past six months.
2= I experienced this event 2 times in the past six months.
3= I experienced this event 3 times in the past six months.
4= I experienced this event 4 times in the past six months.
5= I experienced this event 5 or more times.

1. I have been told I was overreacting when I confronted someone about their heterosexist behaviors/slights.

2. I have been criticized about not wearing clothes that are normal for my gender.
3. Someone has tried to keep their children from coming into physical contact with me because of my sexual orientation.
4. People have made negative comments or jokes about LGBTQ people in my presence without realizing my sexual orientation.
5. I have been told that I should stop complaining about heterosexism.
6. I have been criticized about the way I dress because I choose clothes that are different than people of my gender.
7. I have heard the term “That’s so gay” when someone was talking about something negative.
8. Someone has assumed I have HIV or AIDS because of my sexual orientation.
9. I have seen LGBTQ people portrayed positively in magazines.
10. Someone assumed that I would be a child molester or sexual predator because of my sexual orientation.
11. People have used terms like “fag/dyke/queer/homo” in front of me.
12. When I thought something was heterosexist or homophobic, a heterosexual person provided alternative rationales.
13. I have heard a person call someone else “gay” because she/he was “weird” or “different.”
14. When I thought something was heterosexist or homophobic, a heterosexual person disagreed with me.
15. Someone told me that I was oversensitive when it came to LGBTQ issues.
16. Someone has avoided sitting next to me because of my sexuality.
17. A friend has stopped talking to me after finding out about my sexuality.
18. I have seen LGBTQ people portrayed positively in movies.
19. I have seen LGBTQ people portrayed positively on television.
20. People have made insensitive gay or lesbian jokes in front of me.
21. Someone has responded defensively when I pointed out their homophobic language.
22. I have been told to act more “masculine” or “feminine.”
23. I have seen advertisements/commercials that include same sex couples.
24. I have been told I was being paranoid when I thought someone was being heterosexist.

Non-White Participants Only

Instructions: Think about your experiences with race. Please read each item and think of how many times this event has happened to you in the **PAST SIX MONTHS**.

0 = I did not experience this event.
1 = I experienced this event 1 time in the past six months.
2= I experienced this event 2 times in the past six months.
3= I experienced this event 3 times in the past six months.
4= I experienced this event 4 times in the past six months.
5= I experienced this event 5 or more times.

1. I was ignored at school or at work because of my race.
2. Someone’s body language showed they were scared of me, because of my race.
3. Someone assumed that I spoke a language other than English.

4. I was told that I should not complain about race.
5. Someone assumed that I grew up in a particular neighborhood because of my race.
6. Someone avoided walking near me on the street because of my race.
7. Someone told me that she or he was colorblind.
8. Someone avoided sitting next to me in a public space (e.g., restaurants, movie theaters, subways, buses) because of my race.
9. Someone assumed that I would not be intelligent because of my race.
10. I was told that I complain about race too much.
11. I received substandard service in stores compared to customers of other racial groups.
12. I observed people of my race in prominent positions at my workplace or school.
13. Someone wanted to date me only because of my race.
14. I was told that people of all racial groups experience the same obstacles.
15. My opinion was overlooked in a group discussion because of my race.
16. Someone assumed that my work would be inferior to people of other racial groups.
17. Someone acted surprised at my scholastic or professional success because of my race.
18. I observed that people of my race were the CEOs of major corporations.
19. I observed people of my race portrayed positively on television.
20. Someone did not believe me when I told them I was born in the US.
21. Someone assumed that I would not be educated because of my race.
22. Someone told me that I was "articulate" after she/he assumed I wouldn't be.
23. Someone told me that all people in my racial group are all the same.
24. I observed people of my race portrayed positively in magazines.
25. An employer or co-worker was unfriendly or unwelcoming toward me because of my race.
26. I was told that people of color do not experience racism anymore.
27. Someone told me that they "don't see color."
28. I read popular books or magazines in which a majority of contributions featured people from my racial group.
29. Someone asked me to teach them words in my "native language."
30. Someone told me that they do not see race.
31. Someone clenched her/his purse or wallet upon seeing me because of my race.
32. Someone assumed that I would have a lower education because of my race.
33. Someone of a different racial group has stated that there is no difference between the two of us.
34. Someone assumed that I would physically hurt them because of my race.
35. Someone assumed that I ate foods associated with my race/culture every day.
36. Someone assumed that I held a lower paying job because of my race.
37. I observed people of my race portrayed positively in movies.
38. Someone assumed that I was poor because of my race.
39. Someone told me that people should not think about race anymore.
40. Someone avoided eye contact with me because of my race.
41. I observed that someone of my race is a government official in my state
42. Someone told me that all people in my racial group look alike.
43. Someone objectified one of my physical features because of my race.
44. An employer or co-worker treated me differently than White co-workers.
45. Someone assumed that I speak similar languages to other people in my race

Would you be interested in being a participant in a one hour virtual interview to discuss further your residency experiences? Y/N

If yes, please provide your preferred contact method (i.e., phone number or email): ___________________

Was there anything else you want to add as it relates to your experiences in residency?

Any additional thoughts or comments regarding the questionnaire?

Thank you for your participation in this questionnaire! Your responses are essential in understanding the experiences of historically marginalized and systemically oppressed medical residents. If you have any follow up questions do not hesitate to reach out the primary investigator (Cori Davis- daviscor19@students.ecu.edu).

APPENDIX F: INTERVIEW GUIDE

Introduction for Participants:

Thank you for your participation in this study. The purpose of this study is to get a better understanding of historically marginalized and systemically oppressed (i.e., members of the LGBTQ+ community, racial/ethnic groups of color, and women in medicine) voices in medical residency. Please remember that this study has been approved by the institutional review board at East Carolina University (IRB #), and that the information you share is confidential and will be deidentified. Any identifying information such as names of people or places will be removed from the transcript. Funding for this research was provided by the East Carolina University Office of Equity and Diversity. Any information given for this study will be used to further research for historically marginalized and systemically oppressed medical residents and not for profit or gain of any person or institution. If you have further questions on confidentiality of the project that were not addressed in the informed consent, please reach out to the primary investigator, Cori Davis (daviscor19@students.ecu.edu).

The interview will ask a series of open ended questions about your residency experience. The interview may take between 30 and 90 minutes. If at any time you would prefer not to answer a question, feel free to skip the question.

Interview Guide

We will start with some general questions related to your experiences in residency and then move to more specific questions.

- How would you describe your experience as a historically marginalized and systemically oppressed provider and learner during your residency?
- Have any of the experiences that you shared in your first response been influential or present in your life **prior** to your residency? Prior to Medical School?
- In what ways has your historically marginalized and systemically oppressed identity (i.e., Racial or Ethnic Identity, LGBTQ+ Identity, and/or Gender/Sex) influenced your experiences in residency?
- In what ways do you think your residency experience was more difficult because of your identity?
- In what ways do you think your residency experience was enhanced because of your identity??
- When you think about your residency experience, who or what has been most influential or helpful to you when you have struggled most?
- When you think about your residency experience, who or what has been most influential or helpful to you when you have felt the successes of your residency?

- When you feel or have felt emotional and interpersonal stressors in residency such as, emotional exhaustion, depersonalization, or lack of personal achievement, what do you attribute that too? If you were to give that a name, what would you call it? How long have you experienced this?
- When you feel or have felt like your energy and emotions are low during your residency, what do you attribute that to? If you were to give that experience a name, what would you call it? How long have you experienced this?

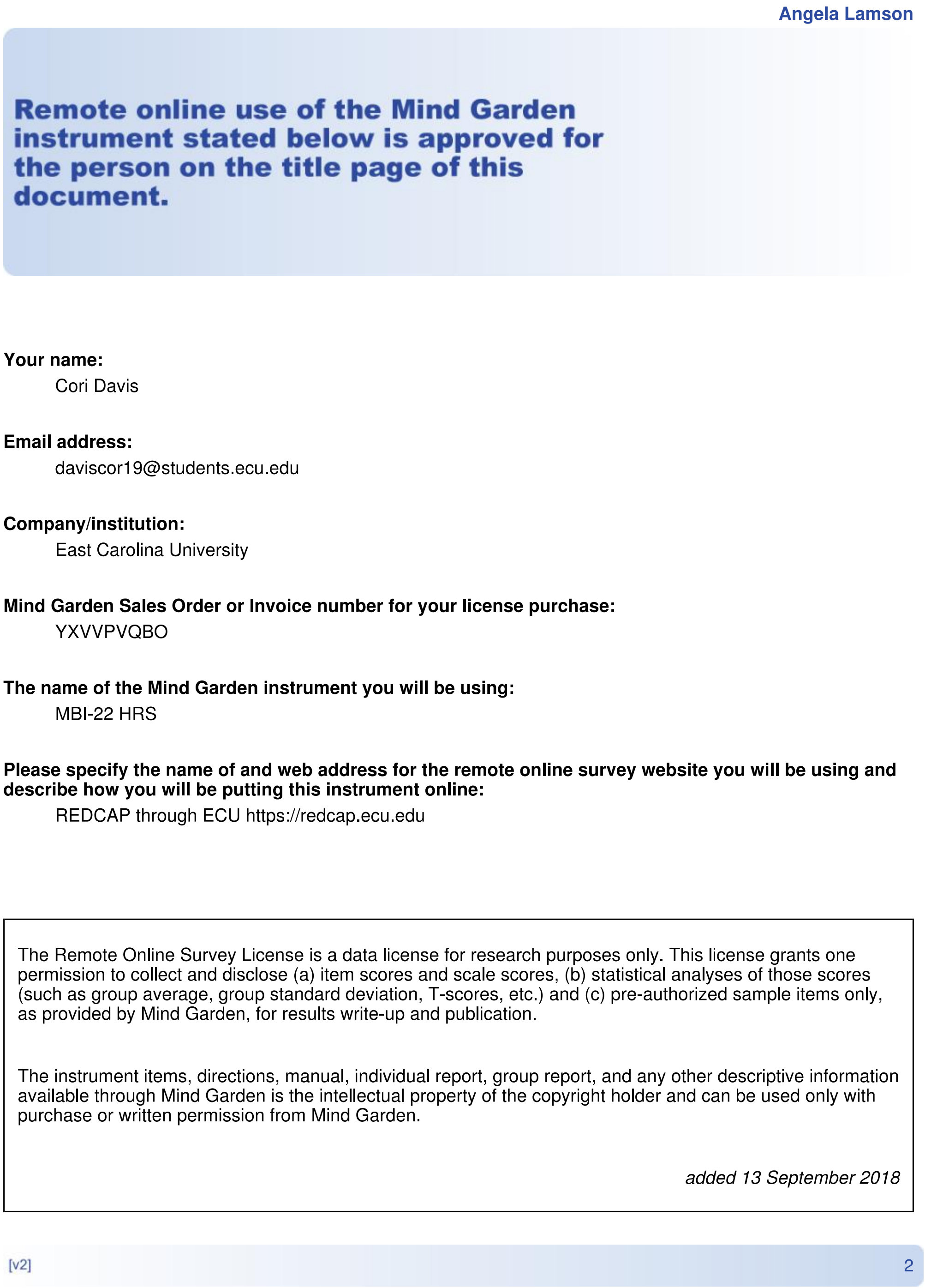
- Have you experienced Burnout or Compassion Fatigue in your residency experience?
- What makes you think you have (or have not) experienced burnout?
- What makes you think you have (or have not) experienced burnout?
    - Burnout is defined as "a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of **exhaustion**, **cynicism** (i.e., role negativity, feeling detached, depersonalization, feeling calloused), and **inefficacy** (i.e., feelings of lack of competence, achievement or workplace satisfaction)." (Baigent, 2018; Maslach et al., 2001)
    - Compassion fatigue is a broadly defined concept that can include **emotional**, **physical**, and **spiritual** distress in those providing care to another. It is associated with caregiving where people are experiencing significant emotional or physical pain and suffering (Compassion Fatigue Awareness Project, 2021).
- In what ways does your historically marginalized and systemically oppressed identity(ies) influence these experiences in residency?
- In what ways do you find that Burnout or Compassion Fatigue relate (or do not relate) to your historically marginalized and systemically oppressed identity(ies)?

- How has harassment/discrimination influenced your residency experiences?
- Have there been experiences where you believe that harassment or discrimination have occurred during your residency and directly related to your historically marginalized and systemically oppressed identity(ies)?
- How have experiences of Discrimination/Harassment influenced your experience of Burnout/Compassion Fatigue?

- What would you say has been most detrimental to your well-being or growth during residency? (feel free to say more) What would you call this?
- What has been most helpful to your well-being or growth during residency? (feel free to say more) What would you call this?
- In what ways has your residency promoted or avoided a healthy work environment for historically marginalized and systemically oppressed residents?
- How would you like to be supported by your residency?
- If you were to imagine a residency program that did not include burnout, compassion fatigue, harassment, or discrimination what do you think you would see happening in that context?

- We are at the close of the interview, is there anything that I did not ask that is relevant to your experience as a historically marginalized and systemically oppressed resident?
- Anything else you would like to add?

APPENDIX G: PERMISSION TO USE MBI



Angela Lamson

Remote online use of the Mind Garden instrument stated below is approved for the person on the title page of this document.

Your name:

Cori Davis

Email address:

daviscor19@students.ecu.edu

Company/institution:

East Carolina University

Mind Garden Sales Order or Invoice number for your license purchase:

YXVVPVQBO

The name of the Mind Garden instrument you will be using:

MBI-22 HRS

Please specify the name of and web address for the remote online survey website you will be using and describe how you will be putting this instrument online:

REDCAP through ECU https://redcap.ecu.edu

The Remote Online Survey License is a data license for research purposes only. This license grants one permission to collect and disclose (a) item scores and scale scores, (b) statistical analyses of those scores (such as group average, group standard deviation, T-scores, etc.) and (c) pre-authorized sample items only, as provided by Mind Garden, for results write-up and publication.

The instrument items, directions, manual, individual report, group report, and any other descriptive information available through Mind Garden is the intellectual property of the copyright holder and can be used only with purchase or written permission from Mind Garden.

added 13 September 2018

APPENDIX H: PERMISSON TO USE PROQOL

Permission to Use the ProQOL

Thank you for your interest in using the Professional Quality of Life Measure (ProQOL). Please share the following information with us to obtain permission to use the measure:

Please provide your contact information: Email Address

daviscor19@students.ecu.edu

Name

Corin Davis

Organization Name, if applicable

East Carolina University

Country

USA

Please tell us briefly about your project:

I am looking to understand more about the experiences of minoritized (people of color, LGBTQ, and women in medicine) residents when it comes to burnout and compassion fatigue.

What is the population you will be using the ProQOL with?

Medical Residents

In what language/s do you plan to use the ProQOL?

Listed here are the languages in which the ProQOL is currently available
(see https://proqol.org/ProQol_Test.html). If you wish to use a language not listed here, please select "Other" and specify which language/s.

English

The ProQOL measure may be freely copied and used, without individualized permission from the ProQOL office, as long as:

You credit The Center for Victims of Torture and provide a link to www.ProQOL.org;
It is not sold; and
No changes are made, other than creating or using a translation, and/or replacing "[helper]" with a more specific term such as "nurse."

Note that the following situations are acceptable:
You can reformat the ProQOL, including putting it in a virtual format
You can use the ProQOL as part of work you are paid to do, such as at a training: you just cannot sell the measure itself

Does your use of the ProQOL abide by the three criteria listed above? (If yes, you are free to use the ProQOL immediately upon submitting this form. If not, the ProQOL office will be in contact in order to establish your permission to use the measure.)

Yes

Thank you for your interest in the ProQOL! We hope that you find it useful. You will receive an email from the ProQOL office that records your answers to these questions and provides your permission to use the ProQOL.

We invite any comments from you about the ProQOL and the experience of using it at proqol@cvt.org. Please also contact us if you have any questions about using the ProQOL, even if you noted them on this form. Note that unfortunately, our capacity is quite limited so we may not be able to respond to your note: however, we greatly appreciate your engagement.

APPENDIX I: PERMISSION TO USE REM, GIM, AND SOM

Hello, Corin.

Thank you for your interest in the scales. Please see kevinnadal.com/research for info on how to obtain access.
Good luck!

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he/them/siya

On Mar 18, 2021, at 1:15 PM, Davis, Corin Elizabeth <DAVISCOR19@students.ecu.edu> wrote:

CAUTION: This email originated from outside of John Jay. Examine it closely before clicking on links or opening attachments

Hello Dr. Nadal,

My name is Cori Davis and I am a second year doctoral student at East Carolina University. I am currently developing my methods for my dissertation and I would love to use your REM, SOM, and GIM scales for my research. I am looking at Minoritized Medical Residents experiences of Burnout/Compassion Fatigue, and I believe your scales can offer information on discrimination relevant to residency experiences.

I look forward to hearing from you,

Cori Davis
PhD Student, 2022
She/Her/Hers
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