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DISCRIMINATION AND CONNECTION: IMPACTS ON HEALTH CARE UTILIZATION, HEALTH-RELATED QUALITY OF LIFE, AND MENTAL HEALTH OUTCOMES

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DISCRIMINATION AND CONNECTION: IMPACTS ON HEALTH CARE UTILIZATION, HEALTH-RELATED QUALITY OF LIFE, AND MENTAL HEALTH OUTCOMES

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BY

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DEDICATION

For my mother, father, nieces, and all those who seek to eradicate oppressive systems such that we may all experience liberation.

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ABSTRACT

Systemic oppression is evident in health care institutions that can manifest as unfair treatment and disenfranchisement toward marginalized communities. The study examined the predictive relationship health care discrimination and connection with a health care provider has on health-related quality of life, depression, anxiety, trauma, and health care underutilization. Data was collected from a diverse sample of 423 participants. The findings indicate that discrimination is a better predictor that connection for health-related quality of life, mental health outcomes, and health care underutilization, especially when looking exploring the experiences of people of color. Practical implications, clinical implications, and future directions are examined while underscoring the detrimental impacts of discrimination in physical and mental health care settings

CHAPTER I: Introduction

Problem Statement

Despite advances in health care and technology, the United States ranks among the worst for mortality, adverse health status, and shortened life span compared to other developed, high-income countries (National Research Council, 2011a, 2011b, 2013; Palloni & Yonker, 2014). Intrinsically related is the fact that disparities among marginalized populations have remained steady and increased over time (Palloni & Yonker, 2014). Hegemonic medical institutions lead to alarming death rates in marginalized communities (Flanders-Stephens, 2000). The medical industrial complex, also understood as health services for profit, bolster discrimination and inequitable experiences to accessing quality health care (Churchill & Perry, 2014). Access to health care has been and remains an issue of equity and power (Carrillo, Carrillo, Perez, Salas-Lopez, Natalie-Pereira, & Byron, 2011; Harris, 2001). There is no guarantee of quality health care across identities, particularly among those who hold marginalized identities. Health care is not “race-neutral” or fair in any context of marginalization. In fact, research has consistently demonstrated the opposite; the closer to the margins of oppression in which an individual exists, the greater likelihood for poorer quality and access to health care (i.e. Roberts & Fantz, 2014). The Obama administration attempted to address issues of health care inequity through the introduction of the Affordable Care Act (Gaffney & McCormick, 2017). However, the succeeding administration has effectively rolled back protections for people who are transgender, gender non-binary, and gender non-conforming that were previously introduced in the Affordable Care Act (potentially increasing the health care disparities for marginalized communities yet again; Simmons-Duffin, 2020).

Efforts have been made to address health care disparities for vulnerable communities. Some researchers and practitioners have begun to move away from biomedical models that disregard the sovereignty of the client and deem the medical professional as the sole expert (McKinstry, 1992). Conversely, biopsychosocial frameworks and interventions have begun to inform the development of integrative services that seek to provide holistic care to clients interacting with healthcare systems (Engel, 1977; Maizes, Rakel, & Niemiec, 2009). Integrative services can be interdisciplinary teams that consult with each other or are all present during a client's medical visits (Maizes, Rakel, & Niemiec, 2009; O'Hara, Verhoef, Boon, & Findlay, 2004; Pelleteir, Herman, Metz, & Nelson, 2010;). Leach, Thakkar, and Agnew (2018) defined integrative health care as "a client-centered model of care provided by a team of biomedical, allied and complimentary health professionals, which work collaboratively and respectfully to deliver accessible, holistic, evidence-based, personalized, coordinated care that emphasizes disease prevention and health, healing and wellness promotion". For example, this allows for social workers, physicians, psychologists, and sometimes also spiritual providers to all meet with the client—either collectively or individually--during one visit to attend to the holistic needs of the client. Concerningly, even within the noted definition of integrated care practices, there is not an emphasis or explicit mention of the intersectional sociopolitical identities of the client and their relationship to care approaches. Integrative teams are known to have power dynamics that often silence the professional role of non-medical providers and the client within what should be a shared decision-making process (Stacey et al., 2016). These uneven power dynamics, therefore, mean that the attempt for holistic care, inclusive of marginalized identity considerations that directly impact rates of health care disparities, falls short for both the client and the provider.

Access to quality health care disproportionately affects minoritized communities (Phillips, Mayer, & Aday, 2000). Inequitable access to insurance coverage is another area in which attempts have been made to resolve health care disparities most prevalent in marginalized communities. Unfortunately, there are conflicting findings on the impact that insurance expansion has on reducing health care disparities for marginalized communities. While expanding health coverage has been found to decrease health disparities between men and women (Arroyave, Cardona, Burdorf, & Avendano, 2013), other studies have noted that differential access and quality of health insurance has little impact on health outcomes (Sudano & Baker, 2006). Furthermore, studies have found that while Black people may have financial insurance coverage necessary for medical care, they face non-financial disparities in accessing needed health care (Guwani & Weech-Maldonado, 2005). The variance in these findings suggest that barriers, in addition to health care access, contribute to well-documented health care disparities. The American Psychiatry Association (2017) and the National Alliance on Mental Illness (2015) noted that practical barriers to care also include: (1) lack of insurance and inadequate insurance, (2) stigma around mental health in marginalized communities, (3) lack of diversity and cultural competence of providers, (4) poorer quality of care, (5) discrimination in treatment settings, (6) language barriers, and (7) distrust of health care systems and providers. These barriers to care highlight the pervasive systemic oppression in medical institutions that contribute to poorer health outcomes. O'Keefe (2015) noted that "social injustices contribute to health disparities". Taken together, there is a large body of research that defending that discrimination in health care--a form of social injustice itself-- largely contributes to health care disparities.

We know that discrimination negatively influences mental and physical health and can also result in increased stress responses or decreased engagement in healthy behaviors (Pascoe & Smart, Richman, 2009). In the context of health care settings, discrimination is widely operationalized in ways such as: marginalizing the voices of individuals accessing services, providing poor service from staff, or failing to demonstrate empathy to clients' concerns of their health ailments (Cuevas, O'Brien, & Sasha, 2016; Stacey et al., 2016). A study showed that perceptions of discrimination, which often leads to mistrust, also leaves some individuals to experience anger or distress, potentially exacerbating pre-existing medical concerns or giving rise to mental health issues (Cuevas et al., 2016). These experiences of discrimination arise as a result of one's marginalized racial identity, health literacy, English proficiency, and other domains (Lyles, Karter, Young, Spinger, & Grembowski, 2011). As outlined above, studies have extensively documented the prevalence and impact of heath care discrimination.

White clients are less likely than racially marginalized clients to report perceived discrimination in health care settings (Lyles et al., 2011), especially when compared to African American and Native American populations (Abramson, Hashemi, & Sanchez-Jankowski, 2015). This disparity in discriminatory experiences for racially marginalized clients has been found to decrease the likelihood of engaging in preventive health measures (Benjamins, 2012). Similarly, rural lesbian women have reported negative reactions from their providers after disclosing their sexual/romantic orientation (Barefoot, Smalley, & Warren, 2017), which can adversely impact future health care utilization. Heterosexist beliefs held by providers inhibit access to quality, preventative health care, especially for queer communities (Barefoot et al., 2017). Furthermore, Greer (2010) found that experiences with provider discrimination negatively impact maintaining health related appointments and avoidance of health-related appointments can result in perpetuate health disparities among marginalized populations.

Despite the existing literature on provider discrimination and mistrust, providers often remain unaware of their negative differential treatment of marginalized populations (Dovidio & Fiske, 2012; Penner et al., 2010; van Ryn, Michelle, Saha, & Somnath, 2011). Physicians perceived minoritized clients as less engaged and poor communicators, resulting in the physician being more antagonistic and potentially delivering a lower quality of care (Street, Gordon, & Haidet, 2007). Haider and colleagues (2011) found that medical students have hegemonic preferences for white and upper-class individuals commonly found in society. “Implicit bias among physicians may contribute to inequities in health care” (van Ryn & Saha, 2011). Provider bias, even among professionals who have committed themselves to addressing health care disparities, can negatively affect client responsiveness (Davidio & Fiske, 2012). Davidio and Fiske (2012) further note that stereotype activation can occur at unconscious levels which can produce discriminatory behaviors despite not consciously endorsing discriminatory beliefs. Similarly, Sophia and Pinto-Zipp (2017) noted that students in the health field demonstrated increased cultural competency by the conclusion of their educational program. However, when providers have a demanding cognitive load, they are not able to allocate the necessary attention that may allow for bias reduction (van Ryn & Saha, 2011). Client’s may make attempts to protect themselves from discrimination and bias when accessing health care services. For example, Black clients had a preference for same-race providers when they believed there was a high potential for discrimination in a health care encounter; but experiences of perceived potential discrimination in same-race client-provider interactions reduced this preference (Malat & Hamilton, 2006). Unfortunately, client-counselor identity matching is difficult to attain, and research has conflicting results on how impactful it is for discrimination reduction. Cuevas and colleagues (2016) noted that clients within same-race client-provider relationships are more likely to adhere to their treatment, communicate and trust their provider.   However, Goode-Cross (2011) noted that within mental health care settings, same-race client-provider dyads do not actually predict positive treatment outcomes like other studies suggest. Taken together, these findings suggest that race or identity matching between the client and provider are insufficient in addressing and rectifying health care disparities across various modalities of health care, and thus other factors need to be considered.

An incredibly concerning problem about health care discrimination research is the parceling of identities. Health care disparities in America disproportionately affect marginalized people and these disparities are heightened for individuals that hold multiple marginalized identities. Perceptions of discrimination enacted by health care providers is more complex than an individual's unitary identity, like race for example (Malat & Hamilton, 2006). "Acknowledging the existence of multiple intersecting identities is an initial step to understanding the complexities of health disparities for populations from multiple historically oppressed groups" (Bowleg, 2012). Moving beyond acknowledging these existences, health care providers and researchers need to continue to explore, understand, and address the impact of interlocking systems of oppression on health care utilization and health outcomes that perpetuate health care disparities. While there is an espoused desire and assertion from public health journals, organizations, and policy makers to prioritize addressing the health disparities of marginalized populations, there is a consistent omission of intersectionality and how the interlocking systems of oppression operate at micro and macro levels to maintain health disparities among marginalized populations (Bowleg, 2012).

Significance of the Study

Minimal existing research takes an intersectional approach in understanding the impact of oppression (Lewis, Williams, Peppers, & Gadson, 2017) and physical and mental health outcomes. O'Keefe (2015) calls for the need for social factors that influence the health of racially and ethnically marginalized individuals, such as socioeconomic positioning, to be considered along with other variables like education and income to better explore health disparities. The impact of perceived discrimination on mental health has intergroup and intragroup commonalities and differences, which suggests the importance of using of an intersectional framework in conceptualizing provider discrimination in mental and physical health care (Cokley et al., 2017). Moreover, most studies that explore or examine the relationship between perceived discrimination and mental health only focus on depression (Cokley et al, 2017) or anxiety (Abdou & Fingerhut, 2014). However, research on insidious trauma and microaggressions has noted that identity-based discrimination for marginalized populations can present as trauma-like symptoms (Carter, 2007; Carter, 2017; Root, 1992; Nadal, 2018). If studies are only looking at discrimination and depression or medical health care utilization, then it is likely missing the impact that discrimination may have on other health outcomes like quality of life, anxiety, and trauma.

This study brings together disparate parts of literature and places health disparities in the context of social inequity and mental/physical health outcomes, while centering intersectionality in the analysis. Looking at this intersection, this study will help better describe the role of discrimination, discrimination's connection to health outcomes and health care utilization, and, finally, potentially also how to better conceptualize and address health disparities. This type of knowledge will help health care professionals and systems better understand and identify factors contributing to health disparities for some of the most ostracized and vulnerable communities.

Purpose of the Study

This study uses an intersectional framework to advance current literature on the impact of discrimination and client-provider connection have on outcomes of depression, anxiety, trauma, general health, and health care utilization. Specifically, the study will ask and seek to answer four questions:

1. How do discrimination in health care settings and connection with a health care provider impact health care underutilization?
2. How do discrimination in health care settings and connection with a health care provider impact quality of life and mental health symptoms related to depression, anxiety, and trauma?
3. To what extent do discrimination and connection influence clients' health care underutilization in marginalized communities?
4. To what extent do discrimination and relational connection influence client’s health outcomes measures of depression, anxiety, trauma, and overall health?

The first hypothesis is that there will be a significant negative correlation between discrimination and health care utilization in physical and mental health settings. Similarly, for the second point of inquiry, I hypothesize that there will be a significant negative relationship between client-provider connectedness and health care utilization in physical and mental health settings. The third hypothesis is that discrimination and relational variables (of connectedness) will contribute to the degree of health care utilization. In other words, as discrimination increases or connection decreases, that will negatively predict health care utilization. The fourth hypothesis is that increased experiences with discrimination and decreased connection will contribute to higher scores on measures of mental and physical health outcomes including: depression, anxiety, trauma, and overall health.

Key Concepts and Definitions

There are multiple terms and constructs that are imperative to define as they are used in this study. The following section provides a concise review of definitions for major themes in this study.

Health care utilization. Health care utilization is defined as the frequency with which an individual accesses medical or mental health care for preventative, emergent, or acute health related concerns (Carrasquillo, 2013). Therefore, in instances where health care services are not utilized when needed, this is underutilization. For the purposes of this study, health care utilization will be operationalized into "no health care underutilization" and "health care underutilization" in medical and mental health settings.

Health care disparities. Health disparities can be understood as the "unfair and avoidable differences in health status seen within and between countries" (World Health Organization, 2014). Heath care disparities are the limited access to and differential treatment in health care settings that result in negative physical and mental health outcomes. This study will explore health care disparities by investigating analyses of health outcomes and health care utilization.

Discrimination. For the purposes of this study, discrimination includes any experiences of denial of equitable treatment or service and identity-based harassment, disrespect, verbal assault, or physical assault in medical and mental health settings as outlined in prior studies on discrimination in health care (Shires & Jaffee, 2015). Of note, discrimination can be dually categorized as interpersonal or institutional discrimination where the former relates to discriminatory experiences that are directly apparent (e.g. physical abuse) and the latter relates to systemic oppression that fosters unequal distribution of resources across populations resulting in powerlessness and oppression (Chen & Yang, 2014; National Research Council, 2004).

Within the Eurocentric context, objective knowledge can only be "true" if one separates themselves and their emotions from the context, thereby validating the epistemological experiences through a lens of oppression. Therefore, subjugated knowledge, like that of perceived discrimination, is developed within the context of oppression (and the experiences of reality), but are invalidated through the hegemonic lens of cis-heteronormative-eurocentrism. Yancy (2008) elucidates this point by noting that communities who have historically experienced oppression have epistemic privilege as they know more about oppression than their oppressors. From this, we see the use of language like "perceived" discrimination instead of "actual" discrimination. Using Collins (2000) epistemological framework, this study will understand "perceived discrimination" as "actual discrimination" or, simply, "discrimination."

Relational connection. Connection and disconnection are defined in accordance with the constructs as operationalized in Relational Cultural Theory (RCT). Connection refers to "an interaction between two or more people that is mutually empathetic and mutually empowering" where disconnection refers to "an encounter that works against mutual empathy and mutual empowerment" (Miller & Stiver, 1997, p. 26). RCT defines the relationship as "the set of interactions that occur over a length of time" and is often comprised of both connection and disconnection that may inform health outcomes (Miller & Stiver, 1997, p. 26).

Depression. Depression is a psychological response or disorder defined in accordance with the Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-5) (American Psychiatric Association, 2013). Global characteristics of depression include persistently depressed mood, loss of interest in pleasurable activities, and various physiological responses that cause impairment in functioning. This study will operationalize depression through the use of the Beck Depression Inventory (BDI) self-report measure, which is a clinically validated measure of depression as outlined by the DSM-V (Beck, Steer, & Brown, 1996).

Anxiety. Anxiety is a psychological response or class of disorders defined in accordance with the DSM-5 (American Psychiatric Association, 2013). Global characteristics of anxiety include pervasive fear, extensive worry of threat, and various physiological responses that cause impairment in functioning. This study will operationalize anxiety through the use of the Beck Anxiety Inventory (BAI) self-report measure, which is a clinically validated measure of anxiety as outlined by the Diagnostic Statistics Manual (Beck, Epstein, Brown, & Steer, 1988).

Trauma. Trauma refers to the experience of an acute life-threatening event. Mental health outcomes related to trauma are often measured by the presence or development of Posttraumatic Stress Disorder (PTSD). This study will use the PCL-5 a self-report measure of trauma related symptoms, that map onto the DSM-5 diagnosis for PTSD (American Psychiatric Association, 2013).

Intersectionality. This study uses the definition of intersectionality given by Crenshaw (1991) that one's multiple marginalized identities are interwoven and inform the vicious experiences with systemic discrimination. The distinctive experience and process through which one's identities intersect and how systems transect to produce and sustain complex inequities surmises intersectionality. Central to the inquiry of this study is how intersecting identities inform the outcomes of interest in medical and mental health systems.

Organization of the Study

This study is organized into five chapters. Chapter 1 provides an introduction into the health disparities in America for marginalized individuals as a function of concerns related to discrimination in (medical and mental) health care settings. Chapter 2 provides a review of the research on health care disparities and discrimination and the relationship to depression, anxiety, trauma, physical health, and utilization for marginalized communities. Chapter 3 will detail the research study methods, Chapter 4 reports the findings, and Chapter 5 provides a discussion of the results, implications, limitations, and future directions.

Chapter II: Literature Review

I will organize this literature review starting with a historical account of discriminatory biomedical practices that lend insight into current oppression health care structures. Then, I will overview existing literature on discrimination as it relates to health care utilization, depression, anxiety, trauma, and health outcomes. I will conclude the review of relevant literature with an orientation to the theoretical frameworks that inform the parameters for this study.

A History of Failed Ethics in Biomedical Research

Marginalization and discrimination of minoritized populations within health care has been endemic to medicine and biomedical research within the United States. There is a long history of research exploiting and victimizing minoritized populations. For example, for 40 years, from 1932-1972, the Tuskegee Syphilis Study (TSS), sponsored by the U.S. Department of Health, withheld the accessible and widely available treatment of penicillin from patients with syphilis (Poythress, Epstein, Stiles, 2011) While approximately 400 African American male share-croppers were made to believe they were receiving treatment for “bad blood,” they were unknowingly subjects of research studying end-stage syphilis characteristics (Poythress, Epstein, Stiles, 2011). Knowledge of TSS is often cited as a major contributor of Black communities mistrust and underutilization in health care systems. However, multiple studies have indicated that white and Black communities alike have little knowledge of TSS (with the notable exception of those living in Macon County, Alabama) and that knowledge of TSS does not affect their participation in biomedical research or utilization of health care (Brandon, Isaac, & Laveist, 2005; Katz et al., 2009; Poythress, Epstein, Stiles, 2011).

Historical accounts of unethical sexually transmitted disease (STD) research with human subjects is evident in the STD Inoculation Research in Guatemala, a global extension to TSS, occurring from 1946-1948. This study included over 1,300 people who were non-consensually inoculated with syphilis, gonorrhea, and chancroid to increase understanding of the effects of penicillin on sexually transmitted disease (Frieden & Collins, 2010; Reverby, 2012). This vulnerable and violated group of people included sex workers, prisoners, patients with severe and persistent mental illness, Guatemalan soldiers, and notably, African-American soldiers (Frieden & Collins, 2010; Reverby, 2012).

From 1939 to 1945, paralleling the same timeline of TSS, German scientists engaged in human subjects research on prisoners detained in concentration camps (Frieden & Collins, 2010; Resnick, 2018). Joseph Mengle, Nazi camp physician sought to promote racial hygiene ideas by cleansing Germany of non-Aryan communities as a means to return to a purified state (National Institute of Environmental Health Sciences, n.d.). Jewish and Roma prisoners were subjected to mass sterilization attempts and injections with infectious disease to assess biological response variance in presumed racially inferior communities (National Institute of Environmental Health Sciences, n.d.). These incidents in biomedical research history demonstrate how biomedical research has targeted the most vulnerable populations through unethical practices that disregarded the life of minoritized people.

In addition to the aforementioned government sanctioned research, there are countless other similar tales of unethical research practices that prey on and traumatize vulnerable communities for the hopes of making medical advances. From 1944 to the 1980's, the United States government sanctioned research on cancer patients, pregnant women, and military personnel, testing the effects of radiation (Resnick, 2018). In 1951, Henrietta Lacks, a Black, working-class woman sought treatment for vaginal bleeding from her gynecologists at Johns Hopkins Hospital (Johns Hopkins Medicine, n.d.). Her cells were taken and used for research without her consent, which were ultimately used to make advances in cancer treatments (Johns Hopkins Medicine, n.d.) of which neither Lacks or her family received any form of compensation for her cells which are still used today (Truog, Kesselheim, & Joffe, 2012). These examples highlight how mistreatment has been engrained in biomedical practices since the turn of the century, and the latter development of biomedical ethical research expectations.

In 1964, the World Medical Association adopted the Declaration of Helsinki as an international set of ethical principles with human subjects—with the most recent revision of it developed in 2001 (Freiden & Collins, 2010; Resnik, 2018). Attention to equitable and humane treatment of human subjects in biomedical research was extended in 1947 when trial verdicts of medical professionals involved in the Holocaust efforts of racial cleansing resulted in the Nuremberg Code, a code outlining the constraints for permissible medical experiments on human subjects (National Institute of Environmental Health Sciences, n.d.; Resnik, 2018). Specifically, this code introduced the necessity of voluntary consent and minimization of physical and emotional harm (Freiden & Collins, 2010; National Institute of Environmental Health Sciences, n.d.); but some authors have critiqued the implications of this code, suggesting that the instated protections are not equally applied to marginalized populations who are seen as barbarians (Reverby, 2012). Contemporarily, federal guidelines for Institutional Review Boards require particular awareness and protection of vulnerable—often marginalized—populations (Freiden & Collins, 2010; Office of Human Research Protection, 2018). Though there has been a documented evolution in human subject protections and guidelines, historical realities can serve as contemporary cautions that unethical practices in biomedical research remain an area of concern, even if unreported.

Current health disparities research often fails to be inclusive of diverse, marginalized populations, thus limiting the generalizability of biomedical research findings (Katz et al., 2009; Poythress, Epstein, Stiles, 2011). Historical exploitation of marginalized populations in medical research has been hypothesized as a contributor to underrepresentation of minoritized populations in biomedical research, lower rates of health care utilization, or even mistrust in the health care system (Brandon, Isaac, & Laveist, 2005; Katz, 2009). However, some research has indicated that knowledge of unethical research has little impact on biomedical research participation and health care utilization (Brandon, Isaac, & Laveist, 2005; Katz, 2009). Another primary parallel is the relationship between researchers and non-research oriented health care systems. Deception in biomedical research has been logged and made available for public knowledge. Presidents have even apologized for past research that harmed vulnerable populations (Reverby, 2012). While many variables may account for concerning discrepancies in health care disparities, quality of health, and health care utilization of historically minorized communities, research seems to suggest that there is value in considering how endemic and persistent discrimination perpetuates adverse health outcomes and health care disparities and underutilization.

After the 1967 British study that indicated an inverse relationship between social position and mortality related to disease (Marmot, 2005; Marmot, Stansfeld, Patel, North, Head, & White, 1991), the United States conducted studies noting similar adverse outcomes for mortality and disease among racially and ethnically marginalized and socioeconomically disenfranchised communities (O'Keefe, 2015). Black women have higher rates of preventable diseases as well as higher rates of diabetes, hypertension, and cardiovascular diseases (Office of Minority Health, 2017). Black women most frequently give birth at hospitals that predominately serve Black communities, but when compared to other hospitals Black serving hospitals have higher rates of maternal complications (Creagna, Bateman, Mhyre, Kuklina, Shilkrut, & Callaghan, 2014). These health care disparities highlight a need to continue investigation into physical and mental health care discrimination and the impact it may have on mental and physical health outcomes as well as utilization.

Intersectionality and Health Outcomes

Discrimination is one facet of systemic oppression that targets marginalized communities (Burgess, et al., 2007; Cassidy, O'Connor, Howe, & Warden, 2004; Corning, 2002; D'Augelli, 1992; Gordon & Meyer, 2008; Hatzenbuehler, McLaughlin, et al., 2010; Huebner, Rebchook, & Kegeles, 2004; Hwang, & Goto, 2008; Moradi, & Risco, 2006b; Ruggiero & Taylor, 1995). Racially and ethnically marginalized populations more frequently report health care discrimination than white people (Lyles et al., 2011), which relates to one’s lower perceived quality of care (Sorkin, Ngo-Metzger, & Alba, 2010). The theory of minority stress suggests that higher levels of perceived discrimination are correlated with higher rates of stress (Meyers, 1995; 2003). This theory has been supported by numerous empirical research findings that delineate the correlation between discrimination and psychological distress for minoritized communities (Corning, 2002; Fischer & Holz, 2007; Fischer & Shaw, 1999; Friedman & Leaper, 2010; Gee, Ryan, Laflamme, & Holt, Hatzenbuehler, McLaughlin, et al., 2010; Huebner, et al., 2004; Kessler, Mickelson, & Williams, 1999; Moradi & Risco, 2006a; Mays & Cochran, 2001; Moradi & Subich, 2003; Smith & Ingram, 2004; Tummala-Narra Alegria, & Chen, 2012; Waldo, 1999; Wei, et al., 2008).

Perceptions of discrimination and mistrust in medical systems are associated with health care satisfaction (López-Cevallos, Harvey, & Warren, 2014). Within the Black-white binary, Black communities are subjected to bias and discrimination that account for negative mental and physical health outcomes (Mays, Cochran, & Barnes, 2007). Medical distrust negatively impacts levels of health care satisfaction, especially so in Latinx populations (Agency for Healthcare Research and Quality, 2011; Lopez-Cevallos, Harvey, & Warren, 2014). However, scant literature explores the interactions between race and ethnicity, religion, and health; specifically, failing to investigate the deleterious health outcomes of Islamophobia on Muslim identified people, and people racialized as Muslim (Samari, Alaclá, & Sharif, 2018). Some researchers suggest that poor health literacy may mediate the relationship between low socioeconomic status and health care discrimination (Lyles et al., 2011). Conversely, there is not a relationship between education and health care discrimination (Lyles et al., 2011). Considering the intersections of geography, sexual/romantic orientation, and gender, rural lesbian women have reported delayed disclosure about their sexual andromantic orientation as a result of previous and current discrimination affiliated with disclosure (Barefoot, Smalley, & Warren, 2017). The intersections of gender, race, and class impact the violence in all realms of life experienced by people who are transgender, genderqueer, and gender variant (White, Reisner, & Pachankis, 2015). These studies indicate the deleterious role discrimination has on mental and physical health—particularly when looking at discrimination towards people with multiple marginalized identities.

It has been well documented in research that discrimination experienced by marginalized communities has deleterious effects on health (Paradies et.al 2015; Williams & Mohammad, 2008; Krieger et.al., 1998; Kessler et.al., 1999; Guyll, Matthews & Bromberger, 2001; Barnes et.al., 2004; Russell et.al., 2018). For black males, discrimination based on race and sexual orientation in health care settings are highly collinear, which then leads to a decreased awareness of HIV preventative medication and a decrease in the willingness to disclose one’s sexual behavior (Maksut, Eaton, Siembida, Fabius, & Bradley, 2017). Mandarin or Cantonese speaking people who are Asian reported higher rates of discomfort in sharing information about their race and ethnicity with health care providers (Kandula, Hasnain-Wynia, Thompson, Brown, & Baker, 2009); which can impact the use of culturally sensitive care, resulting in poor treatment adherence, negative health outcomes, or underutilization (Krause, Coker, Charlifue, & Whiteneck, 1999;). Within health care settings, Asian immigrants reported discrimination more frequently than white populations (Lauderdale, Wen, Jacobs, & Kandula, 2006), which has been a common report among marginalized communities (Williams & Mohammed, 2009). Failure to consider non-medical, culturally relevant factors that contribute to symptom presence and maintenance foster medical and mental health mistrust (Suite, Bril, Primm, & Primm-Ross, 2007). Considering the intersections of socioeconomic status and race, Black and Latinx Americans experience more discrimination as their socioeconomic status moves upward, potentially contributing to the health disparities among affluent people of color (Colen, Ramsey, Cooksey, & Williams, 2018).

Racism and social inequity are a central contributor to health disparities and poorer health outcomes (Smedley et. al., 2003; U.S. Department of Health and Human Services, 2001). Institutionalized racism and prejudices toward marginalized communities can result in discriminatory treatment in health care (Bonilla-Silva et. al., 1997). Research and dialogue on health inequities and barriers to access for people who are transgender often fails to recognize that transphobia and systemic inequities contribute to the poor health outcomes of people who are transgender (Townsend, Jaffer, & Goldman, 2017). Awareness of these discriminatory experiences can influence succeeding discernments of discrimination, ultimately resulting in physiological stress responses that can give rise to the presence and development of disease (Mays, Cochran, & Barnes et. al., 2007). This can occur, in part, due to the allostatic load that arises from chronic stress which then results in poor mental and physical health outcomes (Pascoe & Richman, 2009). Furthermore, perceptions of health care discrimination are related to poorer health outcomes, quality of care, and physician recommended adherence (Cuffee, 2013; Forsyth, 2014; Hausman, 2010; Hausmann, Jeong, Bost, & Ibrahim, 2008). Similarly, the negative relationship between discrimination and negative health outcomes is particularly salient for racially marginalized populations (Brondolo, Rieppi, Kelly, & Gerin, 2003; Flores et al., 2008; Gee, Spencer, Chen, & Takeuchi, 2007). Taken together, it is evident that discrimination uniquely and negatively impacts marginalized communities.

Discrimination and Mental Health

Perceived discrimination, irrespective of health care setting, elicits higher levels of depression, anxiety, and stress, especially for LGBTQ+ people (Ngamake, Walch, & Raveepatarakul 2016). Seemingly subtle discrimination, like gendered microaggression, have a negative impact on mental and physical health and worsen disengagement coping strategies, even when advanced education is considered (Lewis et al., 2017). Within counseling settings, biases and reservations on engaging in meaningful cultural dialogue (i.e. a covert form of discrimination) can have detrimental effects on the therapeutic alliance, or client-therapist connection, and reduce the counselor's comprehension of client perspectives and understandings of their presenting concerns (Mosher, Hook, Captari, Davis, DeBlaere, 2017). Furthermore, research suggests that discrimination in mental health care settings may be more insidious and arise in assessment interpretation that does not consider cultural norms. For example, in a normative validity study on the Minnesota Multiphasic Personality Inventory (MMPI-2) with

American Indians, provider interpretations appeared to be rooted in bias and presumptions of maladjustment to dominant narratives of normalcy (Pace, Robbins, Chonney, Hill, & Lacey, 2006). In addition to mental health outcomes like depression and anxiety, discrimination is also correlated with suicidal ideation in some populations (Cheng at al., 2010). Collectively, research seems to strongly argue that experiences of covert and overt discrimination in health care settings have direct impacts on psychological well-being related to depression, anxiety, and trauma.

Discrimination and depression. There is a large body of research supporting that discrimination adversely impacts mental health (Calabrese, Meyer, Overstreet, Haile, & Hansen, 2015; Feinstein, Goldfried, & Davila, 2012; Milburn et. al, 2010). These findings are consistent across a multitude of identities like race, gender identity, sexual orientation, and socioeconomic status (Mays, Jones, Delany-Brumsey, Coles, & Cochran, 2017; Wagner & Abbott, 2007). Moreover, previous research has indicated that experiences with discrimination has a negative impact on depressive symptoms for Indigenous collegiate students (Tucker, Wingate, O'Keefe, 2016), Chinese, Korean, and Vietnamese American adults (Chau, Bowie, & Juon, 2018), South Asian, Filipino, Korean, and Japanese adults (Krause, Coker, Charlifue, & Whiteneck, 1999), and gay men (Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008; Mays & Cochran, 2001; Mills et al., 2004). Interestingly, prior studies have noted that white clients often report health care discrimination related to identity at lower rates than racially marginalized individuals, but do have experiences of discrimination related to being uninsured (Mays et al., 2017).

Though previous research has found that experiences of discrimination can elicit or worsen depressive symptoms, effectively contributing to notable health care disparities, less is known about the specific relationship between discrimination in health care and outcomes of depression. One study noted that when demographic characteristics, such as race, socioeconomic status, and health status, are controlled for, psychological factors appear to be the major contributor for decreased rates of trust in health care systems and providers (Guerrero, Mendes, Carlos, Evans, & Jacobs, 2015). Other studies have stated that perceived stress and depressive symptoms are predictors of health care discrimination, but they are not casual inferences of health care discrimination (Lyle et al., 2012). In other words, pre-existing psychological concerns foster medical distrust and perceptions of health care discrimination. Further research is needed on the role of health care discrimination and depression. While addressing discrimination in health care is imperative, considering the role of other mental health concerns that can arise from health care discrimination, like anxiety, are vital as well.

Discrimination and anxiety. The presence of anxiety resulting from experiences of discrimination follows similar patterns of the aforementioned outcomes for depression (Carter, Walker, Cutrona Simons, & Beach, 2016; Cheref, Talavera, & Walker, 2019; Hwang & Goto, 2009; Marchand, Palis, Oviedo-Joekes, 2016). Perceived discrimination and imposter feelings were found to predict anxiety in a sample of racially marginalized college students (Cokley et al., 2017). Among Latinx college students, imposter feelings predicted anxiety, whereas perceptions of discrimination predicted depression and anxiety (Cokley et al., 2017). Specific to medical health care settings, one experiential study found that stereotype threat resulted in Black females with strong ethnic identification experiencing more anxiety than white women (Abdou & Fingerhut, 2014). Additionally, perceived discrimination is associated with anxiety symptom severity (Berg et al., 2011). Worry, a key component for most anxiety disorders, is also associated with adversarial cardiac health (Kubzansky et al, 1997). Again, limited research specifically outlines the predictive relationship between health care discrimination and anxiety.

Discrimination and trauma. Discrimination can be experienced as a traumatic event depending on the context and severity (Chou & Hofmann, 2012). Race or class based discrimination is associated with higher levels of depression and posttraumatic stress symptoms (Bird, Bogart, & Delahanty, 2004). However, the DSM-5 requires an event that is life threatening for it to be considered a trauma (Holmes, 2012; Nadal, 2018). Thus, many Eurocentric perspectives may not consider discrimination, especially covert discrimination like ongoing microaggressions, a traumatic event—which, research suggests, results in ignoring the racial wounds that leave troubling psychological effects like PTSD (Loo, Fairbank, & Chemtob, 2005; Scurfield & Mackey, 2001). To this end, health care discrimination may not be classified as a traumatic event. This becomes problematic, researchers argue, because researchers and practioners devalue the discriminatory experience and fail to investigate or address how any discriminatory event may give rise to post-traumatic stress (Nadal, 2018).

Some researchers have begun to address the issue of race-based and identity-based discrimination and the outcome of trauma or PTSD (Carter, 2007; Sue et al, 2010). Root (1991) developed the idea of insidious trauma which asserts that the effects of oppression, that may not appear imminently life threatening, incite violence to the soul and spirit, giving rise to trauma symptoms. Other researchers have devled into race-based and identity-based trauma and how that gives rise to trauma-like symptoms (Carlson, Endsley, Motley, Shawahin, & Williams, 2018). Researchers have called for a need to revist what a trauma is and how PTSD is diagnosed, particularly as it relates to discrimination of all forms, overt and covert (Holmes, Facemire, & DeFonseca, 2016; Nadal, 2018). In fact, some practitioners have begun to develop manualized individual and group therapies that focus on experiences of inequity, discrimination, and oppression (Comas-Díaz, 2016). The literature on the relationship between discrimination and trauma seems to clearly indicate that discrimination can result in the development of trauma like symptoms (Carter, 2007; Sue et al, 2010). However, literature on health care discrimination as a predictor for trauma still is an area ripe for more research.

Discrimination and Health Care Utilization

Perceptions of discrimination are known to result in reduced likelihood to attend health care appointments or return to services among racial marginalized individuals (Greer, 2010). Experiences of discrimination in health care and mental health care settings is correlated with early termination and disbelief in efficacy of treatment (Mays, Jones, Delany-Brumsey, Coles, & Cochran, 2017). Furthermore, the intersections of racial marginalization and economic disenfranchisement has also been shown to contribute to higher rates of being uninsured (Agency for Healthcare Research and Quality, 2012; National Partnership for Women and Families, 2017; The Common Wealth Fund, 2017), thereby impacting health care utilization (Agency for Healthcare Research and Quality, 2012; National Partnership for Women and Families, 2017; The Common Wealth Fund, 2017). For LGBTQ+ populations, individual-level barriers like de-centralized services, and system-level barriers like poverty, provider discrimination, and lack of provider empathy all negatively influence one’s propensity to seek health care services (Romanelli & Hudson, 2017). Moreover, for people who are transgender, lack of service availability (systemic barrier), was more frequently cited as a reason for not accessing services when compared to cisgender, and queer individuals (Romanelli & Hudson, 2017).

Underutilization of health care services negatively influences the ability for medical related concerns to be appropriately addressed, which perpetuates health care disparities (Lai, Alfaifi, & Althemery, 2017). Regarding the intersections of ethnicity and religion, Samari, Alcalá, and Sharif’s (2018) systemic literature review noted that Islamophobia has associations with poor mental health, health behaviors, and diminished health care seeking behaviors. Moreover, assumptions about an Indigenous person's meaning of their culture can result in false assumptions and generalizations, resulting in continued psychological distress or even premature termination (Mosher, Hook, Captari, Davis, DeBlaere, 2017). Taken together, there seems to be multiple reasons that marginalized populations underutilize health care services, with experiences of discrimination being apart of these issues. Nevertheless, research on the relationship between health care discrimination, mental and physical health outcomes, and underutilization remains an area of development in literature.

Connection and Physical and Mental Health

Little is known about how connection, as outlined by relational cultural theory, is related to physical and mental health outcomes. Previous research has noted that barriers to a quality patient-provider relationship include perceived discrimination (Forsyth, Schoenthaler, Chaplin, Ogedegbe, & Ravenell, 2014; Greer, Brondolo, & Brown, 2014), medical mistrust (Shelton et al., 2010; Sheppard, Mays, Tercyak, & LaVeist, 2013), and poor communication (Rim et al., 2011). However, the role of connection, or lack of connection, in conjunction with discrimination is merely inferred in current literature. Medical providers have reported experiencing decreased affiliation with Black clients and believing they have lower intelligence and desire to cooperate with treatment recommendations (Van Ryn, Michelle, Saha, & Somnath, 2011). Decreased affiliation seems to suggest a disconnect in the patient-provider relationship and remains and area needed for further investigation.

Support from physicians is directly implicated in medication adherence for minoritized, Latinx people living with chronic diseases (Colby, Wang, Chhabbra, Jyoti, & Perez-Escamilla, 2012). Support, empathy, and mutuality are components of connection within a relationship

(Jordan, 2018; Miller & Stiver, 1997), though the aforementioned study did not operationalize relational connection between the client and provider in this way. With the exception of psychiatrists, health providers have indicated they feel external to the influences within the systems that use shared decision making to promote equitable care (Stacey et al., 2016). Similarly, those who provide care to the client, but are not medical providers, are often treated as outsiders and “nuisances” (Stacey et al., 2016, p. 38). Relational ruptures are also evident among LGBTQ+ identified people seeking care. Experiences of homonegativity and heterosexism are congruent with the homonegative and heterosexist attitudes endorsed by medical students (Florez-Salamanca & Rubio, 2013). African-American clients reported that in cross-race client-physician dyads, their provider disregarded their symptoms, gave little attention to client facilitated dialogue, engaged in ways that led the client to assume the provider viewed them as drug users, and that clients had a belief that the depersonalized nature of the interactions would be inhibitory for having their provider appropriately advocate for their needs (Cuevas, O’Brien, & Sasha, 2016). Studies have investigated provider biases, as outlined above, but have failed to conceptualize the role of connection or disconnection within these relationships to better understanding health outcomes.

Theoretical Frameworks

This study hinges on three major theoretical frameworks: intersectionality, relational cultural theory, and the health belief model. Each of these theoretical frameworks emphasize the role of cultural disenfranchisement and negative outcomes. I outline each framework below to for introductory clarity on this study’s methodological approach.

Intersectionality. Critical inquiry within social research asserts a need to explore the dynamics of power as they relate to social inequities. Theories of intersectionality are plentiful in social research, including psychology, but is scant within public health (Bowleg, 2012). "Intersectionality scholars posit that the simultaneous experience of both racism and sexism is greater than the sum of its parts" (Bowleg & Bauer, 2016; Crenshaw, 1989; Lewis et al., 2017, p. 476). Identity politics often result in conflating or ignoring intra-group differences, which is the antithesis of intersectionality (Crenshaw, 1991, p. 1241). Black feminist and intersectional frameworks seek to situate the human experiences and the intersections of race and interlocking sociopolitical identities in relationship to power and oppression, and use research as a step toward activism, liberation, and a means of impacting social change.

Crenshaw (1991) indicated a need to engage research and understanding through intersectional paradigms. Within public health, Bowleg (2012) problematizes research and interventions that fail to appropriately consider the holistic, interconnected identities of the populations being served. Bowleg (2012) notes that this problem is an issue of language, and that it impedes quality research and interventions. The concepts within intersectionality that are most salient to issues within public health are (a) sociopolitical identities are multiplicative rather than unidimensional, (b) historically marginalized groups must be centered in research and interventions, and (c) historical and contemporary marginalization intersects at micro and macro levels that yield health disparities (Bowleg, 2012).

While Critical Race Theory (CRT) and white liberal feminism silence the voices of women of color, Black feminist thought centers the intersectional systems of oppression (Crenshaw, 2012). Central in this study is the emphasis on intersectionality and how interlocking systems of power and oppression harm the bodies and psyche of historically, multiply marginalized people and communities. Collins (2000) describes the matrix of domination as the interconnection of systems of oppression and notes that oppression is a composition of multiple marginalization rather than unitary parts and experiences. Within the matrix of domination, Collins (2000) argues that the politics and intersections of race and gender influence one's epistemological stance on oppression; further noting that knowledge is created and validated within a particular context. The matrices (or politics) of domination exist within each relational interaction and can result in a rupture or negative relational image in one's interaction with their health care provider (Collins, 1990; Jordan, 2018). Within the interpersonal domain in the framework of the matrix of domination, Collins (2000) asserts that individuals must investigate how their own "thoughts and actions uphold someone else's subordination" (p. 287).

Relational Cultural Theory. Relational Cultural Theory (RCT) was historically developed to advance the needs of women in psychotherapy, specifically to address how women's experiences with oppression in a heterosexist society negatively impact mental health (Jordan, 2018). After the inception of RCT, there was a need to respond to the critiques of essentialist ideology that imbued the theory and approach of RCT in psychology (Frey, 2013). From there, RCT developed as a psychotherapeutic approach centered on the tenants of intersectionality, multiculturalism, and social justice (Frey, 2013). "Voices of marginalized women were included in the theoretical discussions- not as 'add-ons' but as central developers to the model" (Jordan, 2018, p. 14). Contemporarily, RCT focuses "on the impact of oppression, marginalization, and stratification" (Frey, 2013, p. 179).

RCT centers the necessity of emphatic, authentic relationships as a means for people to thrive at cultural and personal levels (Jordan, 2018). Congruent with critical theories and intersectionality, RCT interrogates the sociopolitical powers of hyperindividualistic societies that breed isolation and disconnection, giving rise to stress and poor health (Jordan, 2018). RCT "seeks to lessen the suffering caused by chronic disconnection and isolation, whether at an individual or societal level, to increase the capacity for relational resilience, and to foster social justice" (Jordan, 2018, p. 27). Walker (2002b) and Jordan (2018) both noted that connections and disconnections occur in context of the ontological significance relating to a culture(s).

Westernized emphasis on men being autonomous and women being caring and nurturing is antithetical to the understanding of development in relationships espoused by RCT (Frey, Beesley, Hurst, Saldana, & Licuanan, 2016; Jordan, 2018; Miller & Stiver, 1997). Rather, in RCT, the affective experience of and within relationships foster mutuality, leading to individual and relational growth while dissolving isolation (Frey et al., 2016). Relationships characterized by authenticity and empowerment, as understood by RCT, reduce feelings of distress (Frey, Beesley, & Miller, 2016). RCT has been used as a framework for understanding heteronormativity and providing culturally proficient services for LGBTQQ+ affirmative counselors (Singh & Moss, 2016). A systemic review of empirical research using RCT constructs indicated that reliability and validity exist among the test instruments and that RCT is a framework applicable across sociopolitical domains (Lenz, 2016).

The core concepts of RCT assert that (a) "people grow through and toward relationship throughout the lifespan," (b) relational movement should be toward mutual empathy and away from separation to enhance functioning, (c) differentiation and expansion within relationships signify growth, (d) "mutual empathy and mutual empowerment are at the core of growth fostering relationships," (e) growth fostering relationships must necessarily include authentic engagement (f) all members of the relationship must be actively involved for growth-fostering relationships to occur, (g) increased relational competence and ability are necessary for development across the lifespan, and (h) growth primarily occurs through mutual empathy (Jordan, 2018). The tenants of RCT compliment Black feminist and intersectionality theories and the Health Belief Model (HBM) in that it centers the role of micro and macro level interactions or relationships. Discrimination in health care settings occur at systemic levels which can be understood through a Black feminist and intersectional paradigm. However, RCT is best suited to compliment Black feminist and intersectional paradigms in understanding the dynamics within immediate interpersonal relationships that foster medical mistrust.

RCT understands growth fostering relationships as those characterized by (a) mutual empathy characterized by a desire and willingness to allow impact to mutually occur within an empathetic relationship through mutuality in responsiveness, care, and impact that can serve as means to repair relational ruptures or promote connection, (b) authenticity characterized by the opportunity to engage fully as ones through expression of emotion and experiences with understanding of their impact on others, (c) mutual empowerment that gives strength to all involved in the relationship, (d) increased knowledge about self and others, desire for connection, productivity, and worth (e) and the necessity to conceptualize and process the impact of culture factors that delineate differences or conflict in the relationship (Frey, 2013; Jordan, 2018). RCT will be the foundation through which connection is operationalized and analyzed in this study.

The Health Belief Model. HBM is a framework for understanding both physical and mental health disparities (Henshaw & Freedman-Doan, 2009; Kim & Zane, 2016). While the HBM may be limited on predictive ability about long-term health behaviors, it does provide a framework to understand how cultural discourse has an impact on health care utilization (Henshaw & Freedman-Doan, 2009). The HBM is rooted in Social Cognitive Theories (SCT) that believe the outcome of reinforcements is learning which diminish psychological drives to activate a behavior (Rosenstock, Stretcher, & Becker, 1988). More specifically, the HBM uses

Bandura’s SCT concepts to note that threat of illness is akin to expectancies about environmental cues, perceptions of benefit relating to recommendation adherence is akin to expectations about outcomes, and the belief that following provider recommendations will reduce perceived threats is akin to incentive (Rosenstock, Stretcher, & Becker, 1988). The HBM “posits that threat of illness and expectations of treatment affect people’s decisions to undertake health-related behaviors” (Kim & Zane, 2016, p. 311). In the HBM, threat is understood as perceived susceptibility and denotes one’s perception of being susceptible to a health-related concern, whereas perceived severity denotes one’s perception of how severe the health concern is (Kim & Zane, 2016). Expectations are characterized as one’s perception of the benefits and barriers to help-seeking for the health-related concern. The SCT construct of self-efficacy are imbedded within the HBM and refers to one’s belief that appropriate help-seeking will result in change that they are capable of; this is sometimes referred to as one’s efficacy expectation (Hensaw & Freedman-Doan, 2009; Kim & Zane, 2016). Cues to action refer to external factors or reminders related to help-seeking, severity, and threat (Hensaw & Freedman-Doan, 2009; Kim & Zane, 2016).

HBM seeks to explain the circumstances under which an individual will adhere to the recommendations of their provider. The HBM asserts that individuals will accept and implement provider recommendations under the following circumstances: (a) perceived susceptibility- the threat of illness is implicated on the client’s being and/or body, (b) perceived severity- the threat will or could adversely impact daily functioning, (c) perceived benefit- the belief that prevention or intervention will reduce the presenting concerns if the recommendations are followed, and (d) perceived barriers- the (non)existence of psychological, physical, financial, or other barriers inhibiting engagement in the recommendation(s). Before these circumstances even matter, however, the individual must first be cued that there is a health (physical, psychological, or otherwise) concern that needs attention (Becker, Radius, Rosenstock, Drachman, Schuberth, & Teets, 1978; Henshaw & Freedman-Doan, 2009; Rosenstock, Stretcher, & Becker, 1988). The HBM states that sociodemographic and structural factors are important influences on each HBD construct (Henshaw & Freedman-Doan, 2009).

The HBM was also expanded to explain people's compliance for preventive care. In this application, the additions to the HBM include: (a) one's health motivation and concern related to presenting problem, including prevention, (b) one's previous illness threat or the susceptibility to the presenting concern, (c) one's faith in the providers care, and (d) the attributes of the recommendation that might reduce or inhibit compliance (Becker et al., 1978; Rosenstock, Stretcher, & Becker, 1988). One implicit aspect of compliance within the HBM is the relationship between the client and the provider—an aspect at the focus of RCT as well. Taken together, research suggests that the relationship between the client and the provider may impact the components of compliance or avoidance of provider recommendations.

In addition to theorizing about client engagement in medical and preventative recommendations, the HBM has three broad themes to move toward increasing utilization, including: (a) increasing one's awareness of susceptibility and severity, (b) increasing perception of recommendation and treatment benefits, and (c) decreasing treatment barriers (Henshaw & Freedman-Doan, 2009).

Combined conceptual framework. Combined, intersectionality, RCT, and HBM provide the conceptual framework for this study. RCT will serve as a vessel to exploring how connection or disconnection in the client-provider relationship are not growth fostering, thereby resulting in perceptions of discrimination impacting the perpetuation of health care disparities.

The utilization dimensions of the HBM will be applied collaboratively within the context of RCT as the three factors necessary for increasing utilization must occur in and through relationships with providers and others that demonstrate and practice mutual empathy and authenticity, while simultaneously valuing the client within their cultural context. Applying Black feminist and structural intersectional theories, increasing awareness and decreasing barriers, would necessitate addressing factors related to systemic oppression of historically marginalized communities. Last, but of most importance, the emphasis of this study is intersectionality – how one's interlocking identities are impacted by systemics of domination and oppression.

Research Questions

Based on the review of literature and need for future research on discrimination and outcomes of mental health, physical health, and health care utilization, this study will investigate the following questions.

1. What is the predictive relationship between discrimination and connection and health care underutilization?
2. To what extent do discrimination and connection predict client's health outcomes measures of depression, anxiety, trauma, and overall health?
3. What is the predictive relationship between discrimination and connection and health care underutilization when considering one's multiplicative identities?
4. To what extent do discrimination and connection predict client's health outcomes measures of depression, anxiety, trauma, and overall health when considering one's multiplicative identities?

CHAPTER III: METHODOLOGY

Participants

Sample and inclusion criteria. Eligibility for survey participation required respondents to be at least 18 years of age, have accessed health care services in the past 24 months, and English reading. Health care services were inclusive of both medical and mental health care related appointments. There were no other inclusion or exclusion criteria specified for participation in this study.

Participant characteristics. The participants in the sample were comprised from two datasets. A total of 173 participants came from the social media sample, comprising 40.9% of the total sample used in the analysis. A total of 250 participants came from the Mechanical Turk sample, comprising 59.1% of the total sample used in the analysis. The participant reported demographics can be found in Table 1. The ages of participants in this sample ranged from 20 to 73 years of age (*M* = 39, *SD* = 12). The sample was comprised of 57.2% women (N = 242), 40.9% men (N = 173), two trans men and gender fluid individuals each , and then one person who identified a trans women, as aporagender, bigender, and demigender each. The sex of the sample was 58.9% female (N = 249) and 41% male (174).

The race and ethnicity of the sample was: 48.5 % white/Caucasian (N = 205), 14.7% Black/African American (N = 62), 2.1% American Indian/Alaskan Native (N = 9, 2.1%), 12.1% Asian/Asian American (N = 51), 15.6% South Asian/Indian (N = 66, 15.6%), .5 % East Asian (N = 2), .9 % Middle Eastern/Arab American (N = 4), 2.4% Mexican American/Chicano (N = 10), .5% Puerto Rican (N = 2), 1.2% Other Latinx (N = 5), .9% Multi-racial (N = 4), and one (.2%) person who is Filipino and Native Hawaiian/Pacific Islander each.

The samples' reported sexual identities were: 79.2% straight (N = 335), 11.1% bisexual (N = 47), 2.1% gay (N = 9), 1.7% lesbian (N = 7), 1.7% pansexual (N = 7), 1.4% asexual (N = 6), 1.2% androsexual (N = 5), .7% queer (N = 3), .2% aromantic (N = 1), other (N = 3, .7%). The education level for the sample was diverse: .05% had less than high school diploma/GED (N = 2), 5.9% received a high school diploma (N = 25), 9.5% attended some college (N = 40), 5.4% with an associate degree (N = 23), 40.7% with a bachelor's degree (N = 172), 27% with a masters' degree (N = 114), and 11.1% with a doctoral degree (N = 47). The annual household income of the sample was diverse: 15,1% earned less than $20,000 (N = 64), 15.1% earned $20,000 to $34,999 (N = 64), 13.5% earned $35,000 to $49,999 (N = 57), 22.9% earned $50,000 to $74,999 (N = 97), 11.1% earn $75,000 to $99,000 (N = 47), and 22.2% earn above $100,000 (N = 94).

The majority, 79.2%, of the sample held legal citizenship in the United States (N = 335), 2.8% were not a legal citizen of the United States (N = 12), 4.7% were working towards gaining citizenship in the United States (N = 20), and 1.9% did not wish to obtain citizenship in the United States (N = 8), 1.9% were legally in the United States but not a legal citizen of the United States (N = 8), and 9.5% chose not to answer (N = 40).

The political identity of the sample was 29.8% liberal (N = 126, 29.8%), 21% very liberal (N = 89), 13.9% moderate (N = 59), 9.9% conservative (N = 42), 8.3% slightly liberal (N = 35), 6.9% very conservative (N = 29), 5.4% slightly conservative (N = 23), 1.2% libertarian (N = 5), and 2.4% don't know/not political (N = 10).

The majority, 84.9%, of the sample stated that they did not have a disability (N = 359) and 15.1% reported having a disability (N = 64). Of those who reported having a disability, 10.2% reported having a physical disability (N = 43) and 4.7% a cognitive disability (N = 20).

The majority, 88.4% of the sample reported having health insurance (N = 374) compared to 11.6% who did not have health insurance (N = 49).

The sample's reported religious identities were: 42.1% Christian (N = 178), 30.3% no religion (N = 128), 17% Hindu (N = 72), 3.3% Muslim (N = 14), 1.2% Jewish (N = 5), .9% Buddhist (N = 4), .2% Satanist (N = 1), and 5% other (N = 21). Most of the sample, 81.8%, did not have a military history (N = 346), 7.3% did have a military history but were not a veteran (N = 31), 4.3% were a veteran (N = 18), 4% were in the reserves (N = 17), 1.7% were in active duty (N = 7), and .9% identified as a disabled veteran (N = 4).

Table 1

Participant Demographics

Characteristic	*n* (%)
Sample	
MTurk	250 (59.1)
Social Media	173 (40.9)
Sex	
Female	249 (58.9)
Male	174 (41.1)
Intersex	0 (0)
Other	0 (0)
Gender	
Woman	242 (57.2)
Man	173 (40.9)
Trans Man	2 (.5)
Gender Fluid	2 (.5)
Trans Woman	1 (.2)
Aporagender	1 (.2)
Bigender	1 (.2)
Demigender	1 (.2)
Race/Ethnicity	
White/Caucasian	205 (48.5)
South Asian/Indian	66 (15.6)
Black/African American	62 (14.7)
Asian/Asian American	51 (12.1)

Mexican American/Chicano	10 (2.4)
American Indian/Alaskan Native	9 (2.1)
Other Latinx	5 (1.2)
Middle Eastern/Arab American	4 (.9)
Multi-Racial	4 (.9)
East Asian	2 (.5)
Puerto Rican	2 (.5)
Filipino	1 (.2)
Native Hawaiian/Pacific Islander	1 (.2)
Sexual Identity	
Straight	335 (79.2)
Bisexual	47 (11.1)
Gay	9 (2.1)
Lesbian	7 (1.7)
Pansexual	7 (1.7)
Asexual	6 (1.4)
Androsexual	5 (1.2)
Queer	3 (.7)
Other	3 (.7)
Aromant	1 (.2)
Education	
Bachelor’s Degree	172 (40.7)
Master’s Degree	114 (27)
Doctoral Degree	47 (11.1)
Some College	40 (9.5)
H.S. diploma/GED	25 (5.9)
Associate degree	23 (5.4)
Less than H.S. diploma/GED	2 (0.05)
Household Income	
$50,000 to $74,999	97 (22.9)
Over $100,000	94 (22.2)
Less than $20,000	64 (15.1)
$20,000 to 34,999	64 (15.1)
$35,000 to $49,000	57 (13.5)
$75,000 to $99,999	47 (11.1)
Immigration Status	
Legal Citizen of the United States	335 (79.2)
Choose Not to Answer	40 (9.5)
Working Toward Gaining Citizenship in the United States	20 (4.7)

Not a Legal Citizen of the United States	12 (2.8)
Do Not Wish to Obtain Citizenship in the United Status	8 (1.9)
Legally in the United States, but not a Legal Citizen	8 (1.9)
Disability Status	
Disabled	64 (15.1)
Physical Disability	43 (10.2)
Cognitive Disability	20 (4.7)
Not Disabled	359 (84.9)
Health Insurance Coverage	
Health Insurance	374 (88.4)
No Health Insurance	49 (11.6)
Religious Affiliation	
Christian	178 (42.1)
No Religion	128 (30.3)
Hindu	72 (17.0)
Other	21 (5.0)
Muslim	14 (3.3)
Jewish	5 (1.2)
Buddhist	4 (.9)
Satanist	1 (.2)
Political Identity	
Liberal	126 (29.8)
Very Liberal	89 (21.0)
Moderate	59 (13.9)
Conservative	42 (9.9)
Slightly Liberal	35 (8.3)
Very Conservative	29 (6.9)
Slightly Conservative	23 (5.4)
Don’t Know/Not Political	10 (2.4)
Libertarian	5 (1.2)
Other	5 (1.2)
Military Status	
Never Served in the Military	346 (81.8)
Not a Veteran	31 (7.3)
Veteran	18 (4.3)
Reserves	17 (4.0)
Now on Active Duty	7 (1.7)
Disabled Veteran	4 (.9)

Design

This study used snowball sampling for survey data collection that was collected at one time point. The cross-sectional design will allow for growth in knowledge as it relates to the impact discrimination and connection has on health care utilization, depression, anxiety, trauma, and general health for marginalized communities. However, for the number of multiple regression analyses that will be done, a Bonferroni adjustment was done to decrease the chance of a Type I error (Tabachnick & Fidell, 2013, p. 272). Therefore, significance will only be interpreted at the .005 or better level. For all logistic regression, significance was set at the standard .005 level.

Procedures

After receiving IRB approval, participants were recruited via snowball sampling. Facebook was the main social media forum most utilized in the recruitment process. The survey was shared on the investigators page and individual requests were privately messaged to individuals to maximize demographic representation. Recruitment and survey materials were also shared to established identity-based Facebook support and community groups. Support groups were identified through a general site-based search of words including: LGBTQ, Black, Native American/Indigenous, etc. The recruitment materials and survey were also emailed to national mental and physical health care organizations. Participants also forwarded the survey to other potential participants. The survey was also made available via Amazon Mechanical Turk (MTURK), a crowdsourcing service for researchers (Ipeirotis, 2010). Two months of time was allocated for survey recruitment occurring in 2019.

Participants first selected the link and were directed to an informed consent page that included the purpose of the study, the investigator and supervising professor with contact information, and a brief description on survey length. Each participant had an unlimited amount of time to take the survey, though it had to be completed in one sitting. Survey completion took approximately 30 minutes. The survey was developed, designed, and administered through Qualtrics, an electronic research software. Participants who completed the survey through the MTURK platform were compensated $1 for their participation.

Instruments

Psychometrics for each instrument used are detailed below. Open access instruments and instruments that were adjusted for this specific study can be found in the appendix. Samples of clinical scales that were not augmented for the purposes of this study are also included in the appendix.

Beck Anxiety Inventory (BAI). The Beck Anxiety Inventory (BAI) is a self-report measure of anxiety symptoms and severity over a one-week time frame (Beck, Epstein, Brown, & Steer, 1988). The BAI is comprised of 21 anxiety related symptoms measured on a Likert scale from zero to three: 0 = "not at all," 1 = "mildly, it did not bother me much," 2 = moderately, it was very unpleasant," and 3 = "severely, I could barely stand it." Raw scores in the range of 0-7 are suggestive of minimal anxiety, 8-15 mild anxiety, 16-25 moderate anxiety, and 26-63 severe anxiety. The BAI has high internal consistency ($\alpha = .92$), high test-retest reliability ($r = .75$), and good concurrent and discriminate validity (Beck et al., 1988). The BAI has been translated to different languages for international use with similar validity and reliability (e.g. Hossein & Mousavi, 2008; Liang, Wang, & Zhu, 2018; Osman, Kopper, Barrios, Osman, & Wade, 1997).

Beck Depression Inventory II (BDI-II). The Beck Depression Inventory II (BDI-II) is a self-report severity measure of depressive symptoms (Beck, Steer, & Brown, 1996), that is consistent with DSM-5 criteria for depression. The BDI-II was designed for individuals who are at least 13 years of age with a minimum of sixth grade education (Arbisi & Farmer, 2013). The BDI consists of 21 depressive symptom items rated by severity on a Likert scale from zero (no symptoms) to three (severe symptoms). Total raw scores in the range of 0-13 are suggestive of minimal depression, 14-19 mild depression, 20-28 moderate depression, and 29-63 severe depression. The BDI-II has a reliability of .92 and .93 for outpatient and nonclinical populations, respectively (Beck et al., 1996). The test-rest reliability of the BDI-II is .93 (Beck et al., 1996). Like the BAI, The BDI-II has been translated to multiple languages and is used across a variety of clinical and nonclinical populations while maintaining reliability and validity integrity (Dutton et al., 2004; Hall et al., 2013; Zhu, Zhang, Sheng, & Wang, 2018).

The Connection-Disconnection Scale (CDS). The Connection-Disconnection Scale (CDS) is a self-report measure that assesses perceptions of relational mutuality with mothers, fathers, friends, and significant others (Sanftner & Tantillo, 2010; Tantillo & Sanftner, 2010). The CDS is theoretically grounded in Relational Cultural Theory that asserts connections and disconnections impact well-being. The CDS has been validated for women in outpatient, partial hospitalization, and collegiate settings (Sanftner & Tantillo, 2010; Tantillo & Sanftner, 2010). The CDS is comprised of 16-items on a 6-point Likert scale measuring tenants of perceived mutuality as explained by relational cultural theory (i.e. empathy, authenticity, engagement, empowerment, zest, diversity, self-worth, and desire for more connection; Sanftner & Tantillo, 2010; Tantillo & Sanftner, 2010). The assessment starts with a non-scored vignette to orient the client to experiences of perceived mutuality. The vignette starts with “You begin to tell your (e.g. father) about something difficult or painful that has transpired between the two of you and he…”

(Sanftner & Tantillo, 2010; Tantillo & Sanftner, 2010). The likert scales anchors items from 1 “none/not at all” to 6 “extreme/extremely” with slight variation in wording for each question.

A systemic review of empirical research using RCT constructs, including the CDS, indicated that reliability and validity exist among the test instruments and that RCT is a framework applicable across sociopolitical domains (Lenz, 2016). Test-retest reliability ranged from r = .59 to r = .86 for each of the four relationships (mother, father, friend, and significant other) for women with eating disorders and those in partial hospitalization (Tantillo & Sanftner, 2010). The test-retest reliability for collegiate women ranged from r = .67 to r = .91 across the four relational areas (Sanftner & Tantillo, 2010). The CDS also demonstrated strong internal consistency for women with eating disorders and those in partial hospitalization (r =.97-.98) and for collegiate women (r = .96-.97) across the four relational areas (Sanftner & Tantillo, 2010; Tantillo & Sanftner, 2010). For women with eating disorders, those in partial hospitalization, and collegiate women, there was good convergent and discriminate validity for each of the four relationship areas (Sanftner & Tantillo, 2010; Tantillo & Sanftner, 2010).

The psychometrics of the CDS suggest that it is a quality measure of connection in relationships. For the purposes of this study, the measure was slightly augmented to focus on health care relationshipsspecifically. With the permission of the scale developers, each question is directly related to interactions with health care providers instead of parents, friends, or intimate partners. To distinguish between connection generally construed and the measured construct of connection, the variable will be denoted in italics.

Discrimination in Medical Settings Scale (DMS). The Discrimination in Medical Settings Scale (DMS) is a 7-item self-report measure of societal discrimination specific to medical settings (Peek, Nunez-Smith-Smith, Drum, & Lewis, 2011). Each item of the DMS is rated on a Likert scale ranging from one (never) to five (always). The DMS was adapted from the Everyday Discrimination Scale (EDS) developed by Krieger, Smith, Naishadham, Hartman, and Barbeau (2005). Higher means are suggestive of greater experiences with discrimination whereas lower means are suggestive of minimal experiences of discrimination. The DMS has strong convergent and discriminant validity, an internal consistency of .89, and a test-retest reliability of .58 (Peek et. al., 2011). This scale was developed on an African American population in an internal medical setting and, thus, an appropriate measure of physical and mental health care related discrimination (Peek et. al., 2011). To distinguish between discrimination generally construed and the measured construct of discrimination, the variable will be denoted in italics.

Health Care Utilization (HCU). To date, there is not a single best measure for health care utilization because of the variance that exists within the construct of utilization. Using one definition of utilization in a study on perceived discrimination and health care utilization, Trivedi and Ayanian (2005) explored the frequency of use of preventive health measures for specific conditions by assessing whether individuals adhered to national guidelines of specific preventative care regimens (i.e. having a foot exam or A1c testing for adults with diabetes) as a measure of utilization. This approach centered on adherence to guidelines has been used in other studies of discrimination and utilization of preventative health services (Hausmann, Jeong, Bost, and Ibrahim, 2008). Another definition can be seen in one study that operationalized frequency of healthcare utilization by developing a three-point categorical variable that included the following options: more than once a year, every 1-2 years, and less than every 3 years (Fazeli Dehkordy, Hall, Dalton, & Carlos, 2016). Participants were asked how often they saw a health care provider in the past five years using a Likert scale ranging from "not at all in the last five years" to "once every three months" (Fazeli et al., 2016). Using yet another approach to the concept of utilization, other studies have operationalized frequency of health care utilization with a single question: "During the last 12 months , was there any time when you had a medical problem but put off, postponed, or did not seek medical care when you needed it?" to dichotomously code for unmet need for health service utilization (e.g. Lee, Ayers, & Kronenfeld, 2009). In a similar yet still distinct way, Burgess and colleagues (2008) measured utilization by adapting questions from the Medical Expenditure Panel Survey (MEPS). In this study, underutilization was classified by affirmative yes responses to both: "In the past 12 months, was there a time when you needed medical care?" and "Did you delay or not get the care you thought you needed?" (Burgess et al., 2008). Another set of questions was also indicative of underutilization of mental health care by affirmative yes responses to both "In the past 12 months, was there a time when you wanted to talk with or seek help from a health care professional about stress, depression, or problems with emotions?" and "Did you delay or not get the care you thought you needed?" (Burgess et al., 2008). Still others explored optimal health care utilization via the development of three constructs: first, utilization was captured through self-reports of healthcare service use within the last 12 months; second, utilization was captured by the respondent engaging in optimal care depending on their health status (i.e. cancer or chronic disease); and last, the researchers asked two questions about forgoing or delaying health care when in need of services (Blanchard & Lurie, 2004). This three-pronged approach is similar to the one used by Burgess and colleagues (2008).

This current study operationalizes frequency of health care utilization using Fazeli Dehkordy and colleagues' (2016) approach where participants were asked "how frequently have you received professional medical health care services in the last 5 years" and "how frequently have you received professional mental health care services in the last 5 years” with response options on a 4-point Likert scale including: “more than once per year,” “every 1-2 years,” “less than every three years,” and “not at all in the last 5 years.” For this scale, higher scores are indicative of less frequent utilization, whereas lower scores are indicative of more frequent utilization. Medical and mental health care underutilization was approached similar to Burgess and colleagues (2008) where underutilization of medical health care was present if affirmative (yes) responses were selected for both “In the past 24 months, was there a time when you needed medical care?” and “Did you delay or not get the medical care you thought you needed?” Underutilization of mental health care was present if affirmative (yes) responses were selected for both “In the past 24 months, was there a time when you wanted to talk with or seek help from a health care professional about stress, depression, or problems with emotions?” and “Did you delay or not get the medical care you thought you needed?”

Posttrauamtic Stress Disorder Checklist for the DSM-5 (PCL-5). The Posttrauamtic Stress Disorder Checklist for the DSM-5 (PCL-5) is a self-report, provisional diagnostic measure of PTSD symptom severity (Weathers et al., 2013). The PCL-5 is comprised of 20 items on a 5-point Likert scale from 0 (not at all) to 4 (extremely). The score range is from 0-80 with a cut score of greater than or equal to 33 (Weathers et al., 2013). Scores from 33-80 are suggestive of clinically significant and increased PTSD symptom severity, while scores below 32 are suggestive of subthreshold PTSD symptoms or less symptom severity (Weathers et al., 2013). The PCL-5 has demonstrated strong internal consistency ($\alpha = .94$), test-retest reliability ($r = .82$), and convergent ($rs = .74$ to .85) and discriminant ($rs = .31$ to .60) validity for college students (Blevins, Wathers, Davis, Witte, & Domino, 2015). Similarly, among veteran populations, the PCL-5 has demonstrated strong internal consistency ($\alpha = .96$), test-retest reliability ($rs = .84$), and convergent (*rs* = .67 to .87) and discriminant validity (*rs* = 04. To .40; Bovin, et al., 2016). Psychometrics on the PCL-5 have continued to demonstrate strong psychometrics across diverse populations (see, for example: Ghazali & Chen, 2018; Ibrahim, Ertl, Catani, Ismail & Neuner 2018; Pereira-Lima, Loureiro, Bolsoni, Apolinario, & Osório, 2019; Wortmann et al., 2016).

RAND 36-Item Short Form Health Survey (SF-36). The RAND 36-Item Short Form Health Survey (SF-36) is a 36-item measure of health-related quality of life (HRQOL; Hays, Sherbourne, & Mazel, 1993). The RAND SF-36 was developed from the Medical Outcome Study (MOS) and was adapted from longer instruments in this study (Stewart, Hays, & Ware, 1988). This instrument is said to be the most commonly used self-report health measure (Garratt, Schmidt, MacIntosh, & Fitzpatrick, 2002). In additional to overall health-related quality of life, the SF-36 assesses 8 domains of health and mental health: physical functioning, role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain, and general health. Subscales are scored by converting each response to a score between zero and 100 per the scoring criteria and are then average to obtain a total score for each domain. Higher scores (e.g. 100) indicate perfect health functioning and lower scores (e.g. 0) indicate poor health functioning. The eight SF-36's subscales reliabilities range from .74 to .93 and the internal consistency for the scales range from .74 to .94 (Hays et al., 1995; McHorney, Ware, Rachel, & Sherbourne, 1994).

Risks and Confidentiality

This study did not involve greater than minimal risk. To address potential risk that may arise, all identifying information (i.e. email for follow-up interviews) were deleted from the collected data and stored separately in a secure format. In addition, at the end of the study, all participants received contact information for national crisis hotlines and intervention services.

Power analysis

In order to establish power > .80, where $p < .05$, a multiple linear regression examining 2 predictors with small effect size ($f^2 = .15$) requires 68 participants (Faul, Erdfelder, Lang, & Buchner, 2007). Logistic and multiple linear regressions were used to for the analysis as detailed in Chapter 4.

CHAPTER IV: Results

Data Preparation

Missing data. Participants who did not answer at least 50% of a given scale of interest were systemically removed from the dataset. This reduced the usable N value to 423 from 546. All remaining cases had at least 75% of the scale items available to compute the average scales, congruent with measure guidelines. For all other inferential analyses, pairwise deletion was used to accommodate any missing data or variables.

Tests of multivariate normality. Normality of all variables were assessed visually (i.e. Histogram, Scatterplot, P-Plot) and statistically (skewness and kurtosis) and found to be adequately normally distributed for the level of inferential analyses conducted in this study. Assessment of normality can be found in Table 2. There were no identified extreme participant outliers in any of the variables. All variables were standardized to a minimum of 0 and maximum of 1 to control for the differing scales and measures in the continuous variables and then used in all regression analyses. The data was not transformed through normalization because the measures in this study are clinical scales; data was normally distributed congruent with the way in which the majority of the population would fall (i.e. in the direction of a non-clinical range). There was no multicollinearity found in any of the regression models.

Table 2

Assessment of Normality

	Mean	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis	Min.	Max.
Physical Functioning	78.6643	26.49646	-1.224	0.119	0.297	0.237	0.00	100.00
Role Limitations due to Physical Health	71.5130	37.64330	-0.866	0.119	-0.870	0.237	0.00	100.00
Role Limitations due to Emotional Problems	63.5146	41.05691	-0.515	0.119	-1.404	0.237	0.00	100.00
Energy/Fatigue	50.4492	20.71098	-0.341	0.119	-0.256	0.237	0.00	100.00
Emotional Well-Being	63.9527	21.56084	-0.512	0.119	-0.299	0.237	0.00	100.00
Social Functioning	71.2470	25.38849	-0.547	0.119	-0.527	0.237	0.00	100.00
Pain	73.9716	22.42894	-0.941	0.119	0.428	0.237	0.00	100.00
General Health	64.5380	22.39393	-0.540	0.119	-0.495	0.237	10.00	100.00
Anxiety	34.3499	13.19182	1.228	0.119	0.840	0.237	21.00	84.00
Depression	34.5319	12.06610	1.024	0.119	0.698	0.237	21.00	85.00
Trauma	36.0189	18.66745	1.213	0.119	0.362	0.237	20.00	94.00
Connection	3.5543	1.22213	-0.230	0.119	-0.889	0.237	1.00	5.94
Discrimination	2.1239	0.96412	0.656	0.119	-0.386	0.237	1.00	5.00

Note. Higher means on the discrimination scale indicate greater experiences with discrimination. Higher scores on the connection scale indicate connection, whereas lower scores indicate lack of connection or disconnection.

Inferential Analysis Findings

Initial dependent variable correlations. Correlations between all dependent variables are provided in Table 3. Connection is not significantly correlated with physical functioning, but is significantly negatively correlated with anxiety, depression, trauma, discrimination, medical health care utilization, and mental health care utilization. On the other hand, connection is significantly positively correlated with role limitations due to physical health, role limitations due to emotional problems, energy and fatigue, emotional well-being, social functioning, pain, and general health.

The correlation table shows that discrimination was significantly negatively correlated with physical functioning, role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain, general health, and connection/disconnection. Discrimination was significantly positively correlated with anxiety, depression, trauma, medical health care underutilization, and mental health care underutilization.

Independent samples t-tests. An independent-samples t-test was conducted to compare the SF-36 subscales, depression, anxiety, trauma, mental health care utilization, and medical health care utilization scores for social media participants and mTurk participants. There was not significant variance in scores on role limitations due to emotional problems, emotional well-being, social functioning, pain, anxiety, and depression. However, there were significant variances in scores on physical functioning, role limitations due to physical health, energy and fatigue, general health, trauma, medical health care underutilization, and mental health care underutilization. While acknowledging the controversies of mTurk data (Gleibs, 2017; Jia, Steelman, & Reich, 2017), I chose to analyze the data collectively in order to maximize statistical power.

The independent-samples t-test did not reveal significant difference in role limitations due to emotional problems for mTurk participants (*M*=66.00 *,* *SD*=39.68) and social media participants (*M*=59.92 *,* *SD*=42.83; t (421) = 1.50, p = .135, two-tailed), emotional well-being for mTurk participants (*M*=63.22, *SD*=22.65) and social media participants (*M*=65.02 *,* *SD*=19.89; t (421) = -.845, p = .399, two-tailed), social functioning for mTurk participants (*M*=71.40, *SD*=22.12) and social media participants (*M*=71.03 *,* *SD*=24.37; t (421) = .149, p = .882, two-tailed), pain for mTurk participants (*M*=73.51, *SD*=23.47) and social media participants (*M*=74.64*,* *SD*=20.88; t (421) = -.508, p = .611, two-tailed), depression for mTurk participants (*M*=73.51, *SD*=23.47) and social media participants (*M*=34.21*,* *SD*=12.86; t (421) = -.655, p = .513, two-tailed), and anxiety for mTurk participants (*M*=35.28, *SD*=15.13) and social media participants (*M*=33.01*,* *SD*=9.62; t (421) = 1.75, p = .081, two-tailed).

The independent-samples t-test revealed significant difference in physical functioning scores for mTurk participants (*M*=75.02*,* *SD*=28.11) and social media participants (*M*=83.93*,* *SD*=23.05; t (409) = -3.57, p<.001, two-tailed), role limitations due to physical health for mTurk participants (*M*=67.40*,* *SD*=38.77) and social media participants (*M*=77.46*,* *SD*=35.22; t (391.35) = -2.77, p<.05, two-tailed), energy/fatigue for mTurk participants (*M*=54.54*,* *SD*=19.31) and social media participants (*M*=44.54*,* *SD*=21.28; t (346.21) = 4.93, p<.001, two-tailed), general health for mTurk participants (*M*=66.87*,* *SD*=20.87) and social media participants (*M*=61.17*,* *SD*=24.09; t (334.75) = 2.53, p<.001, two-tailed), trauma for mTurk participants (*M*=39.51*,* *SD*=21.27) and social media participants (*M*=30.98*,* *SD*=12.52; t (411..48) = 5.18, p<.001, two-tailed), medical health care utilization for mTurk participants

(*M*=.28*,* *SD*=.45) and social media participants (*M*=.41*,* *SD*=.49; t (346.90) = -2.74, p<.05, two-tailed), and mental health care utilization for mTurk participants (*M*=.24*,* *SD*=.43) and social media participants (*M*=.49*,* *SD*=.50; t (331.09) = -5.25, p<.001, two-tailed).

Table 3

Correlations Between All Dependent Measured Health Variables

	2	3	4	5	6	7	8	9	10	1	12	13	14	15
1. Physical Functioning	.567**	.354**	.172**	.211**	.468**	.553**	.285**	-.517**	-.344**	-.521**	0.056	-.381**	-.143**	-.136**
2. Role Limits: Physical	1	.484**	.337**	.350**	.586**	.611**	.384**	-.542**	-.432**	-.515**	.192**	-.365**	-.313**	-.149**
3. Role Limits: Emotional		1	.466**	.548**	.623**	.402**	.335**	-.523**	-.577**	-.477**	.312**	-.371**	-.384**	-.383**
4. Energy			1	.654**	.480**	.355**	.552**	-.352**	-.552**	-.214**	.401**	-0.214	-.229**	-.262**
5. Emotional Well-Being				1	.568**	.328**	.480**	-.524**	-.706**	-.471**	.409**	-.364**	-.224**	-.311**
6. Social Functioning					1	.581**	.456**	-.627**	-.628**	-.602**	.215**	-.456**	-.281**	-.250**
7. Pain						1	.414**	-.557**	-.428**	-.464**	.116*	-.381**	-.289**	-.148**
8. General Health							1	-.399**	-.464**	-.268**	.326**	-.262**	-.280**	-.215**
9. Anxiety								1	.632**	.784**	-.252**	.586**	.334**	.325**
10. Depression									1	.619**	-.360**	.429**	.306**	.355**
11. Trauma										1	-.214**	.615**	.315**	.245**
12. Connection											1	-.390**	-.270**	-.283**
13.Discrimination												1	.382**	.241**
14. Medical Care Utilization													1	.432**
15. Mental Care Utilization														1

* $p < 0.05$ ** $p < 0.001$ **

Research question one. To respond to research question one, I performed a logistic regression to assess the impact of a number of factors on the likelihood that respondents would report medical health care underutilization, which can be found in Table 4. The model contained two independent variables (*discrimination* and *connection*). The full model containing all predictors was statistically significant X^2 (2, N = 423) = 71.522 at the $p < 0.001$ level, indicating that the model was able to distinguish between respondents who reported and did not report medical health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 15.6% (Cox and Snell R square) and 21.7% (Nagelkerke R square) of the variance in medical health care utilization, and correctly classified 72.1% of cases. Both independent variables are significant predictors of the model using the Wald Chi-square test with *discrimination* = 36.788, p<.001 and *connection* = 9.072, p<.005. The strongest predictor of reporting medical health care underutilization was discrimination, recording an Exp(B)/odds ratio of 2.105 (95% CI: 1.655, 2.677). This odds ratio indicates that respondents who experienced discrimination were two times more likely to report medical health care underutilization than those who did not experience discrimination.

Then, I performed a logistic regression to assess the impact of the two independent variables, *discrimination* and *connection*, on the likelihood that respondents would report mental health care underutilization. The full model containing both predictors was statistically significant X^2 (2, N=423) = 43.485 p <.001, which indicates that the model was able to distinguish between respondents who reported and did not report mental health care underutilization. The model as a whole explained between 9.8% (Cox and Snell R square) and 13.5`% (Nagelkerke R square) of the variance in mental health care utilization, and correctly classified 68.6% of cases. Both independent variables are significant predictors of the model using the Wald Chi-square test with *discrimination* = 9.958, p<.005 and *connection* = 18.461, p<.001. The strongest predictor of reporting mental health care underutilization was discrimination, recording an Exp(B)/odds ratio of 1.408 (95% CI: 1.125, 1.762). This indicated that respondents who experienced discrimination were about one and half times more like to report mental health care underutilization than those who did not experience discrimination.

Table 4

Standardized Coefficients Predicting Medical Health Care Underutilization

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.744	.123	36.788	.000	2.105	1.655 - 2.677
Connection	-.363	.121	9.072	.003	.695	.549 - .881

Standardized Coefficients Predicting Mental Health Care Underutilization

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.342	.114	8.958	.003	1.408	1.125 – 1.762
Connection	-.504	.117	44.186	.000	.604	.480 - .760

Note: significance set at *p* </= .005

Research question two. To respond to research question two, I conducted a series of multiple linear regression to investigate whether *discrimination* and *connection* are related to different health outcomes. In the paragraphs following I will investigate discrimination and connection as they relate to physical functioning, role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional-well-being, social functioning, pain, general health, anxiety, depression, and trauma, separately and in that order. All outcomes for discrimination can be found in Table 5, and outcomes for connection can be found in Table 6.

Physical functioning. The first multiple regression looks at the relationship between *discrimination* and *connection* as independent variables and the physical functioning dimension of health-related quality of life. The results of the regression indicated that the model explained 15.5% of the variance, which can be described as a large effect size (Cohen, 1988).

Discrimination and *connection* combined in the model are significant predictors of physical functioning, F(2, 420) = 38.527, p=<.001. Neither *discrimination* (β = -.423, p<.001) or *connection* (β = -.109, p<.05), contributed significantly to the model at the .005 threshold used in this study.

Role limitations: physical. The second multiple regression looks at the relationship between *discrimination* and *connection* as independent variables and the role limitations due to physical health dimension of health-related quality of life. The results of the regression indicated that the model explained 13.6% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection combined in the* model are significant predictors of role limitations due to physical health, F(2, 420) =33.071, p=<0.001. While *discrimination* contributed significantly to the model (β= -.342, p<0.001), *connection* did not (β=.059, p=.24).

Role limitations: emotional. The third multiple regression looks at the relationship between *disconnection* and *connection* as independent variables and the role limitations due to emotional problems dimension of health-related quality of life. The results of the regression indicated that the model explained 17.1% of the variance, which can be best described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of role limitations due to emotional problems, F(2, 420) =43.236, p=<.001. Both predictors, *discrimination* (β= -.294, p<.001) and *connection* (β=.197, p<.001), contributed significantly to the model, with discrimination contributing the largest amount of the variance.

Energy/fatigue. The fourth multiple regression looks at the relationship between *discrimination* and *connection* as independent variables the energy/fatigue dimension of health-related quality of life. The results of the regression indicated that the model explained 16.5% of the variance, which can be considered a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of energy/fatigue, F(2, 420) =41.486, p=<.001. While *connection* contributed significantly to the model, (β=.375, p<.001), *discrimination* did not (β= -.067, p=.17).

Emotional well-being. The fifth multiple regression looks at the relationship between *discrimination* and *connection* as independent variables and the emotional well-being dimension of health-related quality of life. The results of the regression indicated that the model explained 21.7% of the variance, which can be considered a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of emotional well-being, F(2, 420) =58.033, p=<.001. Both predictors, *discrimination* (β= -.241, p<.001) and *connection* (β=.315, p<.001), contributed significantly to the model with *connection* contributing the largest amount of the variance.

Social functioning. The sixth multiple regression looks at the relationship between *discrimination* and *connection* as independent variables and the social functioning dimension of health-related quality of life. The results of the regression indicated that the model explained 21.0% of the variance, which can be considered a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of emotional well-being, F(2, 420) =55.791, p=<.001. While *discrimination* contributed significantly to the model (β= -.439, p<.001), *connection* (β=.044, p= .35), did not.

Pain. The seventh multiple regression looks at the relationship between *discrimination* and connection as independent variables and the pain dimension of health-related quality of life. The results of the regression indicated that the model explained 14.6% of the variance, which can be considered a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of pain, F(2, 420) =36.002, p=<.001. While *discrimination* contributed significantly to the model (β= -.396, p<.001), *connection* did not (β=-.038, p=.43).

General health. The eighth multiple regression looks at the relationship between *discrimination* and *connection* as independent variables and the general health dimension of health-related quality of life. The results of the regression indicated that the model explained 12.8% of the variance, which can be considered a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of general health, F(2, 420) =30.715, p=<.001. Both predictors, *discrimination* (β= -.160, p<.001) and *connection* (β=.263, p<.001), contributed significantly to the model, with *connection* contributing the largest amount of the variance.

Anxiety. The ninth multiple regression looks at the relationship between *discrimination* and *connection* as independent variables and anxiety. The results of the regression indicated that the model explained 34.4% of the variance, which can be considered a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of anxiety, F(2, 420) =109.976, p=<.001. While *discrimination* contributed significantly to the model (β= .575, p<.001), *connection* did not (β=-.028, p=.51).

Depression. The tenth multiple regression looks at the relationship between *discrimination* and *connection* as independent variables and depression. The results of the regression indicated that the model explained 22.7% of the variance, which can be considered a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of depression, F(2, 420) =61.827, p=<.001. Both predictors, *discrimination* (β= .340, p<.001) and *connection* (β=-.227, p<.001), contributed significantly to the model, with *discrimination* contributing the largest amount of the variance.

Trauma. The eleventh multiple regression looks at the relationship between *discrimination* and connection as independent variables and trauma. The results of the regression indicated that the model explained 37.9% of the variance, which can be considered a large effectt size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of trauma, F(2, 420) =128.124, p=<.001. While *discrimination* contributed significantly to the model (β= .627, p<.001), *connection* did not (β=-.031, p=.46).

Table 5

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL)

Predictors	β	F	R Square	P
Discrimination	-.423	38.527	.155	.000

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL)

Predictors	β	F	R Square	P
Discrimination	-.342	33.071	.136	.000

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL)

Predictors	β	F	R Square	P
Discrimination	-.294	43.236	.171	.000

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL)

Predictors	β	F	R Square	P
Discrimination	-.067	41.486	.165	.165

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL)

Predictors	β	F	R Square	P
Discrimination	-.241	58.033	.217	.000

Standardized Regression Coefficients Predicting Social Functioning (HRQOL)

Predictors	β	F	R Square	P
Discrimination	-.439	55.791	.210	.000

Standardized Regression Coefficients Predicting Pain (HRQOL)

Predictors	β	F	R Square	P
Discrimination	-.396	36.002	.146	.000

Standardized Regression Coefficients Predicting General Health (HRQOL)

Predictors	β	F	R Square	P
Discrimination	-.160	30.715	.128	.001

Standardized Regression Coefficients Predicting Anxiety

Predictors	β	F	R Square	P
Discrimination	.575	109.976	.344	.000

Standardized Regression Coefficients Predicting Depression

Predictors	β	F	R Square	P
Discrimination	.340	61.827	.227	.000

Standardized Regression Coefficients Predicting Trauma

Predictors	β	F	R Square	P
Discrimination	.627	128.124	.379	.000

Note: significance set at $p <= .005$

Table 6

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL)

Predictors	β	F	R Square	P
Connection	-.109	38.527	.155	.026

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL)

Predictors	β	F	R Square	P
Connection	.059	33.071	.136	.236

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL)

Predictors	β	F	R Square	P
Connection	.197	43.236	.171	.000

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL)

Predictors	β	F	R Square	P
Connection	.375	41.486	.165	.000

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL)

Predictors	β	F	R Square	P
Connection	.315	58.033	.217	.000

Standardized Regression Coefficients Predicting Social Functioning (HRQOL)

Predictors	β	F	R Square	P
Connection	.044	55.791	.210	.351

Standardized Regression Coefficients Predicting Pain (HRQOL)

Predictors	β	F	R Square	P
Connection	-.038	36.002	.146	.434

Standardized Regression Coefficients Predicting General Health (HRQOL)

Predictors	β	F	R Square	P
Connection	.263	30.715	.128	.000

Standardized Regression Coefficients Predicting Anxiety

Predictors	β	F	R Square	P
Connection	-.028	109.976	.344	.514

Standardized Regression Coefficients Predicting Depression

Predictors	β	F	R Square	P
Connection	-.227	61.827	.227	.000

Standardized Regression Coefficients Predicting Trauma

Predictors	β	F	R Square	P
Connection	.031	128.124	.379	.456

Research question three. To respond to research question three, I performed a logistic regression to assess the impact of a number of factors on the likelihood that respondents would report medical or mental health care underutilization when considering intersectional identities of race, class, and gender. The model contained two independent variables (*discrimination* and *connection*). The results from this analysis can be found in Table 7.

Medical health care underutilization. For all people of color who make less than \$35,000 annually the full model containing all predictors was statistically significant X^2 (2, N = 88) = 22.730 at the $p < 0.001$ level, indicating that the model was able to distinguish between respondents who reported and did not report medical health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 22.8% (Cox and Snell R square) and 32.1% (Nagelkerke R square) of the variance in medical health care utilization, and correctly classified 78.4% of cases. *Connection* was the only independent variable that was a significant predictor of the model using the Wald-Chi square test with *connection* = 8.36, p = < 0.005 and *discrimination* = 4.816, p=.028. The strongest predictor of reporting medical health care underutilization was *connection*, recording an Exp(B)/odds ratio of .383 (95% CI: .200, .734). This odds ratio indicates that respondents who experienced lower *connection* were .383 times more likely to report medical health care underutilization than those who did not experience connection.

For participants in the sample who are people of color with a bachelor's degree the full model containing all predictors was statistically significant X^2 (2, N = 107) = 26.798 at the $p < 0.001$ level, indicating that the model was able to distinguish between respondents who reported and did not report medical health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 22.2% (Cox and Snell R square) and 30.9% (Nagelkerke R square) of the variance in medical health care utilization, and correctly classified 75.7% of cases. *Discrimination* was the only independent variable that was a significant predictor of the model using the Wald-Chi square test with *discrimination* = 17.601, p = < 0.001 and *connection* = 1.363, p=.243. The strongest predictor of reporting medical health care underutilization was discrimination, recording an Exp(B)/odds ratio of 2.816 (95% CI: 1.736, 4.567). This odds ratio indicates that respondents who experienced discrimination were 2.8 times more likely to report medical health care underutilization than those who did not experience discrimination.

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the full model containing all predictors was statistically significant X^2 (2, N = 79) = 12.497 at the $p < 0.005$ level, indicating that the model was able to distinguish between respondents who reported and did not report medical health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 14.6% (Cox and Snell R square) and 20.5% (Nagelkerke R square) of the variance in medical health care utilization, and correctly classified 70.9% of cases. Separately, neither of the independent variables were significant predictors of the model using the Wald-chi square test with *discrimination* =6.394, p=.011 and *connection* = 1.646, p=.199.

For participants in the sample who are a person of color and report their gender identity as cisgender woman the full model containing all predictors was statistically significant X^2 (2, N = 103) = 30.697 at the $p < 0.001$ level, indicating that the model was able to distinguish between respondents who reported and did not report medical health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 25.8% (Cox and Snell R square) and 35.5% (Nagelkerke R square) of the variance in medical health care utilization, and correctly classified 73.8% of cases. *Discrimination* was the only independent variable that was a significant predictor of the model using the Wald-Chi square test with *discrimination* = 14.429, p = < 0.001 and *connection* = 2.082, p=.149. The strongest predictor of reporting medical health care underutilization was discrimination, recording an Exp(B)/odds ratio of 3.356 (95% CI: 1.797, 6.269). This odds ratio indicates that respondents who experienced discrimination were 3.4 times more likely to report medical health care underutilization than those who did not experience discrimination.

For participants in the sample who are person of color and report their gender identity as cisgender man the full model containing all predictors was statistically significant X^2 (2, N = 113) = 15.127 at the $p < 0.001$ level, indicating that the model was able to distinguish between respondents who reported and did not report medical health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 12.5% (Cox and Snell R square) and 17.5% (Nagelkerke R square) of the variance in medical health care utilization, and correctly classified 73.5% of cases. *Discrimination* was the only independent variable that was a significant predictor of the model using the Wald-Chi square test with *discrimination* = 9.894, p = < 0.005 and *connection* = 1.252, p=.263. The strongest predictor of reporting medical health care underutilization was discrimination, recording an Exp(B)/odds ratio of 1.871 (95% CI: 1.266, 2.764). This odds ratio indicates that respondents who experienced discrimination were 1.8 times more likely to report medical health care underutilization than those who did not experience discrimination.

Mental health care underutilization. For all people of color who make less than $35,000 annually the full model containing all predictors was statistically significant X^2 (2, N = 88) = 13.727 at the $p < 0.001$ level, indicating that the model was able to distinguish between respondents who reported and did not report mental health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 14.4% (Cox and Snell R square) and 21.1% (Nagelkerke R square) of the variance in mental health care utilization, and correctly classified 78.4% of cases. Separately, neither of independent variables were significant predictors of the model using the Wald-chi square test with *discrimination* =1.004, p=.316 and *connection* = 7.122, p=0.008.

For participants in the sample who are people of color with a bachelor's degree the full model containing all predictors was statistically significant X^2 (2, N = 107) = 12.513 at the $p < 0.005$ level, indicating that the model was able to distinguish between respondents who reported and did not report mental health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 11.0% (Cox and Snell R square) and 15.3% (Nagelkerke R square) of the variance in mental health care utilization, and correctly classified 67.3% of cases. *Discrimination* was the only independent variable that was a significant predictor of the model using the Wald-Chi square test with *discrimination* = 8.240, p = < 0.005 and *connection* = 1.300, p=.254. The strongest predictor of reporting mental health care underutilization was *discrimination*, recording an Exp(B)/odds ratio of 1.842 (95% CI: 1.214, 2.796). This odds ratio indicates that respondents who experienced discrimination were 1.8 times more likely to report mental health care underutilization than those who did not experience discrimination.

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the full model containing all predictors was not statistically significant X^2 (2, N = 79) = 7.004 at the $p < 0.005$ level, indicating that the model was not able to distinguish between respondents who reported and did not report mental health care underutilization based on one's experiences of discrimination and connectedness. Separately, neither of the independent variables were significant predictors of the model using the Wald-chi square test with *discrimination* =2.954, p=.086 and *connection* = 1.491, p=.222.

For participants in the sample who are a person of color and report their gender identity as cisgender woman the full model containing all predictors was not statistically significant X^2 (2, N = 103) = 9.412 at the $p < 0.005$ level, indicating that the model was not able to distinguish between respondents who reported and did not report mental health care underutilization based on one's experiences of discrimination and connectedness. Separately, neither of the independent variables were significant predictors of the model using the Wald-chi square test with *discrimination* =.919, p=.338 and *connection* = 4.901, p=.027.

For participants in the sample who are person of color and report their gender identity as cisgender man the full model containing all predictors was statistically significant X^2 (2, N = 113) = 11.477 at the $p < 0.005$ level, indicating that the model was able to distinguish between respondents who reported and did not report mental health care underutilization based on one's experiences of discrimination and connectedness. The model as a whole explained between 9.7% (Cox and Snell R square) and 13.7% (Nagelkerke R square) of the variance in mental health care utilization, and correctly classified 71.7% of cases. *Discrimination* was the only independent variable that was a significant predictor of the model using the Wald-Chi square test with *discrimination* = 7.883, p = 0.005 and *connection* = .782, p=.377. The strongest predictor of reporting mental health care underutilization was discrimination, recording an Exp(B)/odds ratio of 1.737 (95% CI: 1.181, 2.554). This odds ratio indicates that respondents who experienced discrimination were 1.7 times more likely to report mental health care underutilization than those who did not experience discrimination.

Table 7

Standardized Coefficients Predicting Medical Health Care Underutilization for People of Color who make less than $35,000 per year

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR	
						LL	UL

Discrimination	.638	.291	4.816	.028	1.892	1.071 – 3.344
Connection	-.959	.332	8.361	.004	.383	.200 - .734

Standardized Coefficients Predicting Medical Health Care Underutilization for People of Color who have a Bachelor's Degree

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	1.035	.247	17.601	.000	2.816	1.736 – 4.567
Connection	-.326	.279	1.363	.243	.722	.418 – 1.247

Standardized Coefficients Predicting Medical Health Care Underutilization for People of Color who have an Advanced Secondary Degree

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.688	.272	6.394	.011	1.989	1.167 – 3.390
Connection	-.358	.279	1.646	.199	.699	.405 – 1.208

Standardized Coefficients Predicting Medical Health Care Underutilization for People of Color who are Cis-gender Women

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	1.211	.319	14.429	.000	3.356	1.797 – 6.269
Connection	-.407	.282	2.082	.149	.665	.383 – 1.157

Standardized Coefficients Predicting Medical Health Care Underutilization for People of Color who are Cis-gender Men

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.626	.199	9.894	.002	1.871	1.266 – 2.764
Connection	-.270	.242	1.252	.263	.763	.475 – 1.225

Standardized Coefficients Predicting Mental Health Care Underutilization for People of Color who make less than $35,000 per year

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.287	.286	1.004	.316	1.332	.760 – 2.334
Connection	-.890	.333	7.122	.008	.411	.214 - .789

Standardized Coefficients Predicting Mental Health Care Underutilization for People of Color who have a Bachelor's Degree

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.611	.213	8.240	.004	1.842	1.214 – 2.796
Connection	-.287	.251	1.300	.254	.751	.459 – 1.229

Standardized Coefficients Predicting Mental Health Care Underutilization for People of Color who have an Advanced Secondary Degree

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.433	.252	2.954	.086	1.542	.941 – 2.528
Connection	-.327	.268	1.491	.222	.721	.427 – 1.219

Standardized Coefficients Predicting Mental Health Care Underutilization for People of Color who are Cis-gender Women

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.232	.242	.919	.338	1.261	.785 – 2.024
Connection	-.542	.245	4.901	.027	.581	.360 - .940

Standardized Coefficients Predicting Mental Health Care Underutilization for People of Color who are Cis-gender Men

	B	S.E.	Wald χ^2	*P*	OR	95% CI OR LL UL
Discrimination	.552	.197	7.883	.005	1.737	1.181 – 2.554
Connection	-.214	.242	.782	.377	.808	.503 – 1.297

Note: significance set at *p* </= .005

Research question four. To respond to research question four, I conducted a series of multiple linear regressions to investigate whether *discrimination* and *connection* are related to different health outcomes when considering intersectional identities of race, class, and gender. In the following paragraphs I will investigate discrimination and connection as they relate to physical functioning, role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional-well-being, social functioning, pain, general health, anxiety, depression, and trauma, separately and in that order.

Physical functioning. The first set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and the physical functioning dimension of health-related quality of life. For all people of color who make less than $35,000 annually in the sample the results of the regression indicated that the model explained 14.6% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of physical functioning F(2, 85) = 7.243, p=<0.001. While *discrimination* contributed significantly to the model (β= -.380, p<0.001), *connection* did not (β=.004, p=.98).

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 23.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of physical functioning F(2, 104) = 15.683, p=<0.001. While *discrimination* contributed significantly to the model (β= -.479, p<0.001), *connection* did not (β=.009, p=.92).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 17.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of physical functioning F(2, 76) = 7.869, p=<0.001. While *discrimination* contributed significantly to the model (β= -.425, p<0.001), *connection* did not when using the Bonferroni adjustment (β=-.306, p=.009).

For participants in the sample who are a person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 5.8% of the variance, which can be described as a small effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model were not significant predictors of physical functioning F(2, 100) = 4.092, p=.050. Neither *discrimination* (β= -.236, p=.031) or *connection* (β=.012, p=.91) contributed significantly to the model.

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 34.4% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of physical functioning F(2, 110) = 28.842, p=<0.001. While *discrimination* contributed significantly to the model (β= -.618, p<0.001), *connection* did not when using the Bonferroni adjustment (β=-.162, p=.050).

Role limitations: physical. The second set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and the role limitations due to physical health dimension of health-related quality of life. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 21.5% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of role limitations due to physical health F(2, 85) = 11.642, p=<0.001. While *discrimination* contributed significantly to the model (β= -.312, p<.001), *connection* did not when using the Bonferroni adjustment (β=.232, p=.033).

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 28.8% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of role limitations due to physical health F(2, 104) = 21.072, p=<0.001. While *discrimination* contributed significantly to the model (β= -.445, p<0.001), *connection* did not when using the Bonferroni adjustment (β=.201, p=.02).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 10.0% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model were not significant predictors of role limitations due to physical health F(2, 76) = 4.218, p=.018. Neither *discrimination* (β= -.332, p=.006) or *connection* (β=-.046, p=.70) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 15.4% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of role limitations due to physical health F(2, 100) = 9.071, p=<0.001. While *discrimination* contributed significantly to the model (β= -.325, p<0.005), *connection* did not (β=.120, p=.242).

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 20.4% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of physical functioning F(2, 110) = 14.108, p=<0.001. While *discrimination* contributed significantly to the model (β= -.411, p<0.001), *connection* did not (β=-.097, p=.286).

Role limitations: emotional. The third set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and the role limitations due to emotional problems dimension of health-related quality of life. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 17.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of role limitations due to emotional problems F(2, 85) = 8.859, p=<0.001. Separately, neither *discrimination* (β= -.219, p=.010) or *connection* (β=.194, p=.081) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are people of color and have a bachelor’s degree the results of regression indicated that the model explained 18.5% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of role limitations due to emotional problems F(2, 104) = 11.771, p=<0.001. While *discrimination* contributed significantly to the model (β= -.364, p<0.001), *connection* did not (β=.148, p=.11).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 18.3% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of role limitations due to emotional problems F(2, 76) = 8.518, p=<0.001. Separately, neither *discrimination* (β= -.308, p=.008) or *connection* (β=.200, p=.08) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 9.2% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model were not significant predictors of role limitations due to emotional problems F(2, 100) = 5.044, p=<0.008. Neither *discrimination* (β= -.200, p=.061) or *connection* (β=.157, p=.141) contributed significantly to the model.

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 29.7% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of role limitations due to emotional problems F(2, 110) = 23.283, p=<0.001. While *discrimination* contributed significantly to the model (β= -.455, p<0.001), *connection* did not when using the Bonferroni adjustment (β=.188, p=.028).

Energy/Fatigue. The fourth set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and the energy/fatigue dimension of health-related quality of life. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 16.1% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of energy/fatigue $F(2, 85) = 8.143$, $p<0.001$. While *connection* contributed significantly to the model ($\beta=.360$, $p<0.005$), *discrimination* did not ($\beta=-.079$, $p=.48$).

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 17.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of energy/fatigue $F(2, 104) =10.793$, $p<0.001$. While *connection* contributed significantly to the model ($\beta=.339$, $p<0.001$), *discrimination* did not ($\beta=-.162$, $p=.08$).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 15.1% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of energy/fatigue $F(2, 76) = 6.761$, $p=<0.005$. Separately, neither *discrimination* ($\beta= -.165$, $p=.15$) or *connection* ($\beta=.292$, $p=.013$) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 12.7% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of energy/fatigue F(2, 100) = 7.283, p<0.001. While *connection* contributed significantly to the model (β=.340, p<0.001), *discrimination* did not (β=-.035, p=.737).

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 19.3% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of energy/fatigue F(2, 110) = 13.191, p=<0.001. While *connection* contributed significantly to the model (β= .327, p<0.001), *discrimination* did not when using the Bonferroni adjustment (β=-.207, p=.024).

Emotional well-being. The fifth set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and the emotional well-being dimension of health-related quality of life. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 27.9% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of emotional well-being F(2, 85) =16.454, p<0.001. Both predictors, *discrimination* (β=-.293, p=0.005) and *connection* (β=.329, p<0.005) contributed significantly to the model, with *connection* contributing the largest amount of variance.

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 23.7% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of emotional well-being F(2, 104) = 16.183, p=<0.001. While *discrimination* contributed significantly to the model (β= -.377, p<0.001), *connection* did not when using the Bonferroni adjustment (β=.221, p=.02).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 19.3% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of emotional well-being F(2, 76) = 9.079, p=<0.001. While *discrimination* contributed significantly to the model (β= -.358, p<0.005), *connection* did not (β=.150, p=.18).

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 12.3% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of emotional well-being F(2, 100 = 7.024, p=<0.005. Separately, neither *discrimination* (β= -.147, p=.159) or *connection* (β=.262, p=.013) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 32.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of emotional well-being F(2, 110) = 26.073, p=<0.001. While *discrimination* contributed significantly to the model (β= -.459, p<0.001), *connection* did not when using the Bonferroni adjustment (β=-.216, p=.011).

Social functioning. The sixth set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and the social functioning dimension of health-related quality of life. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 14.9% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of social functioning F(2, 85) = 7.446, p=<0.001. Neither *discrimination* (β= -.271, p=.017) or *connection* (β=.180, p=.11) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 25.3% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of social functioning F(2, 104) = 17.574, p=<0.001. While *discrimination* contributed significantly to the model (β= -.511, p<0.001), *connection* did not (β=-.035, p=.69).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 14.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of social functioning F(2, 76) = 6.294, p=<0.005. While *discrimination* contributed significantly to the model (β= -.371, p<0.005), *connection* did not (β=.014, p=.90).

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 7.3% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model were not significant predictors of social functioning F(2, 100) = 3.916, p=0.023. Neither *discrimination* (β= -.218, p=.043) or *connection* (β=.090, p=.401) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 37.6% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of social functioning F(2, 110) = 33.187, p=<0.001. While *discrimination* contributed significantly to the model (β= -.612, p<0.001), *connection* did not (β=.004, p=.957).

Pain. The seventh set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and the pain dimension of health-related quality of life. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 10.4% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model were not significant predictors of pain F(2, 85) = 4.938, p=0.009. Separately, neither *discrimination* (β= -.215, p=.064) or *connection* (β=.164, p=.16) contributed significantly to the model.

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 17.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of pain F(2, 104) = 10.827, p=<0.001. While *discrimination* contributed significantly to the model (β= -.407, p<0.001), *connection* did not (β=.027, p=.77).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 12.3% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model were not significant predictors of pain

F(2, 76) = 5.311, p=0.007. Separately, *discrimination* contributed significantly to the model (β= -.381, p<0.005), while *connection* did not (β=-.162, p=.17).

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 12.6% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of pain F(2, 100) = 7.221, p=<0.001. While *discrimination* contributed significantly to the model (β= -.334, p<0.005), *connection* did not (β=.044, p=.673).

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 17.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of pain F(2, 110) = 11.405, p=<0.001. While *discrimination* contributed significantly to the model (β= -.437, p<0.001), *connection* did not (β=-.106, p=.250).

General health. The eight set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and the general health dimension of health-related quality of life. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 23.3% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of general health F(2, 85) = 12.889, p<0.001. While *connection* contributed significantly to the model (β=.487, p<0.001), *discrimination* did not (β=-.010, p=.93).

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 21.4% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of general health F(2, 104) =14.169, p<0.001. Both predictors, *discrimination* (β=-.317, p=0.001) and *connection* (β=.260, p<0.005) contributed significantly to the model, with *discrimination* contributing the largest amount of variance.

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 13.1% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of general health F(2, 76) = 5.728, p=0.005. Separately, neither *discrimination* (β= -.067, p=.57) or *connection* (β= -.330, p=0.006) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 16.1% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of general health F(2, 100) = 9.580, p<0.001. While *connection* contributed significantly to the model (β=.368, p<0.001), *discrimination* did not (β=-.066, p=.515).

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 21.0% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of physical functioning F(2, 110) = 14.613, p=<0.001. While *discrimination* contributed significantly to the model (β= -.310, p<0.001), *connection* did not when using the Bonferroni adjustment (β=.251, p=.006).

Anxiety. The ninth set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and anxiety. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 36.9% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of anxiety F(2, 85) = 24.875, p=<0.001. While *discrimination* contributed significantly to the model (β=.500, p<.001), *connection* did not (β=-.190, p=.051).

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 46.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of anxiety F(2, 104) = 44.665, p=<0.001. While *discrimination* contributed significantly to the model (β= .686, p<0.001), *connection* did not (β=.023, p=.76).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 22.5% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of anxiety F(2, 76) = 11.051, p=<0.001. While *discrimination* contributed significantly to the model (β= .495, p<0.001), *connection* did not (β=.061, p=.58).

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 26.7% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of anxiety F(2, 100) = 18.183, p=<0.001. While *discrimination* contributed significantly to the model (β= .532, p<0.001), *connection* did not (β=.039, p=.682).

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 43.9% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of anxiety F(2, 110) = 43.119, p=<0.001. While *discrimination* contributed significantly to the model (β= .677, p<0.001), *connection* did not (β=-.048, p=.5299).

Depression. The tenth set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and depression. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 18.6% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of depression F(2, 85) = 9.293, p<0.001. While *connection* contributed significantly to the model (β=-.395, p<0.001), *discrimination* did not (β=.071, p=.52).

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 27.3 % of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of depression F(2, 104) = 19.523, p=<0.001. While *discrimination* contributed significantly to the model (β= .496, p<0.001), *connection* did not (β=-.076, p=.35).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 17.2% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of depression F(2, 76) = 7.871, $p<0.001$. Separately, neither *discrimination* (β= .185, p=.11) or *connection* (β= -.305, p=0.009) contributed significantly to the model when using the Bonferroni adjustment.

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 6.9% of the variance, which can be described as a medium effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are not significant predictors of depression F(2, 100) = 3.705, p=028. Separately, neither *discrimination* (β= .113, p=.295) or *connection* (β= -.194, p=0.073) contributed significantly to the model.

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 32.5% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of depression F(2, 110) = 26.467, p=<0.001. While *discrimination* contributed significantly to the model (β=.512, $p<0.001$), *connection* did not (β=-.134, p=.108).

Trauma. The eleventh set of multiple regressions looks at the relationship between *discrimination* and *connection* as independent variables and trauma. For all people of color who make less than $35,000 annually the results of the regression indicated that the model explained 29.9% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of trauma F(2,

85) = 18.104, p=<0.001. While *discrimination* contributed significantly to the model (β=.464, p<.001), *connection* did not (β=-.149, p=.14).

For participants in the sample who are people of color and have a bachelor's degree the results of regression indicated that the model explained 49.5% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of trauma F(2, 104) = 50.908, p=<0.001. While *discrimination* contributed significantly to the model (β= .706, p<0.001), *connection* did not (β=.010, p=.89).

For participants in the sample who are people of color with advanced secondary education (i.e. Master's or Doctorate degree) the results of regression indicated that the model explained 26.1% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of trauma F(2, 76) = 13.403, p=<0.001. While *discrimination* contributed significantly to the model (β= .543, p<0.001), *connection* did not (β=.106, p=.33).

For participants in the sample who are person of color and report their gender identity as cisgender woman the results of regression indicated that the model explained 20.3% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of trauma F(2, 100) = 12.727, p=<0.001. While *discrimination* contributed significantly to the model (β= .425, p<0.001), *connection* did not (β=-.053, p=.592).

For participants in the sample who are person of color and report their gender identity as cisgender man the results of regression indicated that the model explained 48.4% of the variance, which can be described as a large effect size (Cohen, 1988). *Discrimination* and *connection* combined in the model are significant predictors of trauma F(2, 110) = 51.606, p=<0.001. While *discrimination* contributed significantly to the model (β= .723, p<0.001), *connection* did not (β=.105, p=.148).

Table 8

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	-.380	7.243	.146	.001

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	-.479	15.683	.232	.000

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	-.425	7.869	.172	.000

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	-.236	3.092	.058	.031

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	-.619	28.842	.344	.000

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	-.312	11.642	.215	.005

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	-.455	21.072	.288	.000

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	-.332	4.218	.100	.006

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	-.325	9.071	.154	.002

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P

Discrimination	-.411	14.108	.204	.000

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	-.291	8.859	.172	.010

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	-.364	11.771	.185	.000

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	-.308	8.518	.183	.008

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	-.200	5.044	.092	.061

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	-.455	23.283	.297	.000

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	-.079	8.143	.161	.478

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	-.162	10.793	.172	.083

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	-.165	6.761	.151	.154

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	-.035	7.283	.127	.737

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	-.207	13.191	.193	.024

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	-.293	16.454	.279	.005

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	-.377	16.183	.237	.000

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	-.358	9.079	.193	.002

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	-.147	7.024	.123	.159

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	-.459	26.073	.322	.000

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	-.271	7.446	.149	.017

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	-.511	17.574	.253	.000

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	-.371	6.294	.142	.002

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	-.218	3.916	.073	.043

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	-.612	33.187	.376	.000

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	-.215	4.938	.104	.064

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	-.407	10.827	.172	.000

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	-.381	5.311	.123	.002

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	-.334	7.221	.126	.002

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	-.437	11.405	.172	.000

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	.010	12.889	.233	.929

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	-.317	14.169	.214	.001

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	-.067	5.728	.131	.568

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	-.066	9.580	.161	.515

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	-.310	14.163	.210	.001

Standardized Regression Coefficients Predicting Anxiety for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	.500	24.875	.369	.000

Standardized Regression Coefficients Predicting Anxiety for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	.686	44.665	.462	.000

Standardized Regression Coefficients Predicting Anxiety for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	.495	11.051	.225	.000

Standardized Regression Coefficients Predicting Anxiety for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	.532	18.183	.267	.000

Standardized Regression Coefficients Predicting Anxiety for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	.677	43.119	.439	.000

Standardized Regression Coefficients Predicting Depression for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	.071	9.716	.186	.515

Standardized Regression Coefficients Predicting Depression for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	.496	19.523	.273	.000

Standardized Regression Coefficients Predicting Depression for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	.185	7.871	.172	.108

Standardized Regression Coefficients Predicting Depression for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	.113	3.705	.069	.295

Standardized Regression Coefficients Predicting Depression for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Discrimination	.512	26.467	.325	.000

Standardized Regression Coefficients Predicting Trauma for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Discrimination	.464	18.104	.299	.000

Standardized Regression Coefficients Predicting Trauma for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Discrimination	.706	50.908	.495	.000

Standardized Regression Coefficients Predicting Trauma for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Discrimination	.543	13.403	.261	.000

Standardized Regression Coefficients Predicting Trauma for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Discrimination	.425	12.727	.203	.000

Standardized Regression Coefficients Predicting Trauma for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P

Discrimination	.723	51.606	.484	.000

Note: significance set at *p* </= .005

Table 9

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	.004	7.243	.146	.975

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.009	15.683	.232	.921

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	-.306	7.869	.172	.009

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.012	3.092	.058	.909

Standardized Regression Coefficients Predicting Physical Functioning (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	-.162	28.842	.344	.050

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	.232	11.642	.215	.033

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.201	21.072	.288	.022

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	-.046	4.218	.100	.696

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.120	9.071	.154	.242

Standardized Regression Coefficients Predicting Role Limitations due to Physical Health (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P

Connection	.097	14.108	.204	.286

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	.194	8.859	.172	.081

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.148	11.771	.185	.112

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	.200	8.518	.183	.080

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.157	5.044	.092	.141

Standardized Regression Coefficients Predicting Role Limitations due to Emotional Problems (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	.188	23.283	.297	.028

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	.360	8.143	.161	.002

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.339	10.793	.172	.000

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	.292	6.761	.151	.013

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.340	7.283	.127	.001

Standardized Regression Coefficients Predicting Energy/Fatigue (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	.327	13.191	.193	.000

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	.329	16.454	.279	.002

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.221	16.183	.237	.015

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	.150	9.079	.193	.184

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.262	7.024	.123	.013

Standardized Regression Coefficients Predicting Emotional Well-Being (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	.216	26.073	.322	.011

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	.180	7.446	.149	.109

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	-.035	17.574	.253	.692

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	.014	6.294	.142	.903

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.090	3.916	.073	.401

Standardized Regression Coefficients Predicting Social Functioning (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	.004	33.187	.376	.957

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	.164	4.938	.104	.156

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.027	10.827	.172	.773

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	-.162	5.311	.123	.171

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.044	7.221	.126	.673

Standardized Regression Coefficients Predicting Pain (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	-.106	11.405	.172	.250

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	.487	12.889	.233	.000

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.260	14.169	.214	.005

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	.330	5.728	.131	.006

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.368	9.580	.161	.000

Standardized Regression Coefficients Predicting General Health (HRQOL) for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	.251	14.613	.210	.006

Standardized Regression Coefficients Predicting Anxiety for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	-.190	24.875	.369	.051

Standardized Regression Coefficients Predicting Anxiety for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.023	44.665	.462	.763

Standardized Regression Coefficients Predicting Anxiety for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	.061	11.051	.225	.583

Standardized Regression Coefficients Predicting Anxiety for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	.039	18.183	.267	.682

Standardized Regression Coefficients Predicting Anxiety for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	.048	43.119	.439	.529

Standardized Regression Coefficients Predicting Depression for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	-.395	9.716	.186	.000

Standardized Regression Coefficients Predicting Depression for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	-.076	19.523	.273	.384

Standardized Regression Coefficients Predicting Depression for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	-.305	7.871	.172	.009

Standardized Regression Coefficients Predicting Depression for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	-.194	3.705	.069	.073

Standardized Regression Coefficients Predicting Depression for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	-.134	26.467	.325	.108

Standardized Regression Coefficients Predicting Trauma for People of Color who make less than $35,000 per year

Predictors	β	F	R Square	P
Connection	-.149	18.104	.299	.144

Standardized Regression Coefficients Predicting Trauma for People of Color who have a Bachelor's Degree

Predictors	β	F	R Square	P
Connection	.010	50.908	.495	.891

Standardized Regression Coefficients Predicting Trauma for People of Color who have an Advanced Secondary Degree

Predictors	β	F	R Square	P
Connection	.106	13.403	.261	.327

Standardized Regression Coefficients Predicting Trauma for People of Color who are Cis-gender Women

Predictors	β	F	R Square	P
Connection	-.053	12.727	.203	.592

Standardized Regression Coefficients Predicting Trauma for People of Color who are Cis-gender Men

Predictors	β	F	R Square	P
Connection	.105	51.606	.484	.148

Note: significance set at *p* </= .005

Chapter V: Discussion

Summary of Findings

Statistical support for each hypothesis was variable. Findings suggest that discrimination more frequently predicted physical and mental health outcomes than connection, especially when considering the intersections of race, class, and gender. Though connection did not to appear to have the predictive ability as frequently as predicted, the findings are largely congruent with previous literature that indicates discrimination is a predictor of physical health and mental health outcomes.

Question one. The first hypothesis that discrimination and connection combined would significantly predict medical and mental health care underutilization for everyone in the sample was supported. Discrimination and connection significantly predicted medical health care underutilization with those who experienced discrimination being two times more likely to report medical health care underutilization than those who did not experience discrimination. Discrimination and connection significantly predicted mental health care underutilization with those who experienced discrimination being one and half times more likely to report mental health care underutilization than those who did not experience discrimination.

These findings are congruent with previous research that experiences of discrimination can negatively impact health care utilization (Greer, 2010; Mays, Jones, Delany-Brumsey, Coles, & Cochran, 2017; Romanelli & Hudson, 2017). While previous literature has investigated mental health care utilization and discrimination, the findings from this study advance literature on mental health care utilization predicted by discrimination and connection. Moreover, the results from this study suggest that the role of connection is separately implicated from experiences of discrimination in the predictive value of health care utilization.

Question two. The second hypothesis that discrimination and connection, combined, would significantly predict health-related quality of life (i.e. physical functioning, role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional-well-being, social functioning, pain, general health), anxiety, depression, and trauma was partially supported. Discrimination and connection both predicted outcomes of physical functioning, role limitations due to emotional problems, emotional well-being, general health, and depression. Discrimination alone predicted outcomes of role limitations due to physical health, social functioning, pain, anxiety, and trauma. Connection alone predicted outcomes of energy/fatigue, a dimension of health-related quality of life.

These findings suggest that experiences of discrimination have impacts on the presence, severity, or development of poorer health related quality of life, anxiety, and trauma. The finding that discrimination is predictive of trauma supports literature on discrimination giving rise to trauma symptoms (Bird, Bogart, & Delahanty, 2004; Chou & Hofmann, 2012; Nadal, 2018). However, these findings expand literature on discrimination and trauma presentation specifically to health care settings, which no known studies have previously investigated. As well, the findings from this study introduce the predictive relationship between health care discrimination and anxiety, which no known studies have previously explored. However, the findings in this study are consistent with other studies that demonstrate that discrimination in non-medical settings can predict anxiety (Carter, Walker, Cutrona Simons, & Beach, 2016; Cheref, Talavera, & Walker, 2019; Hwang & Goto, 2009; Marchand, Palis, Oviedo-Joekes, 2016). Collectively, these findings highlight the pervasiveness of discrimination across institutions of oppression and their adversarial impact on health outcomes. In addition to the predictive ability of discrimination on health-related quality of life and depression, this study was also able to predict outcomes of health-related quality of life and trauma, which was previously underdeveloped in health psychology and public health literature.

Question 3 three. The third hypothesis that discrimination and connection would significantly predict both medical and mental health care underutilization for marginalized communities was not supported. Discrimination and connection combined did not predict medical health care underutilization for people of color in the study who had lower socioeconomic status (i.e. less than $35,000 annually), have a bachelors level education, have an advanced secondary education (i.e. Master's or Doctorate degree), who are cis-gender woman, or who are cis-gender man. Similarly, discrimination and connection combined did not predict mental health care underutilization for people of color in the study who had low socioeconomic status (i.e. less than $35,000 annually), bachelors level education, advanced secondary education (i.e. Master's or Doctorate degree), were cis-gender women, or were cis-gender men.

By itself, discrimination was a significant predictor of medical health care underutilization for people of color with a bachelor's degree, people of color who are cis-gender women, and people of color who are cis-gender men. Connection was a significant predictor of medical health care underutilization for people of color with lower socioeconomic status.

Discrimination was a significant predictor of mental health care underutilization for people of color with a bachelor's degree and people of color who are cis-gender men. Neither discrimination nor connection were individually significant predictors of mental health care underutilization for people of color with low socioeconomic status, people of color with an advanced secondary degree, and people of color who are cis-gender women.

These results suggest that factors other than discrimination and connection may contribute to medical and mental health care underutilization. Though, again, in this study discrimination appeared to be a better predictor of health care utilization (Greer, 2010) compared to connection. This means that the role of connection does not appear to have an impact on health care utilization, over and above, experiences of discrimination. The limited impact of connection on medical and mental health care underutilization may be a function of the absent temporal analysis of the client-provider relationship. Miller and Stiver (1997) note that relationships are interactions that occur over time and are comprised of both connection and disconnection. While the emphasis of this research focused on the person to person relationship with health care providers, it did not assess the relationship individuals may have with the system in which they are accessing or not accessing said health care providers. Investigation of one's connection to broader systems, with known histories of oppression, may give more insight into the role connection has in health care underutilization. It is also important to note that the collapsing of some demographic domains may have contributed to the lower predictive ability of connection on health care underutilization.

Question four. The fourth hypothesis that discrimination and connection would significantly predict health-related quality of life (i.e. physical functioning, role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional-well-being, social functioning, pain, general health), anxiety, depression, and trauma for people of color who had lower socioeconomic status, bachelors level education, advanced secondary education (i.e. Master's or Doctorate degree), were cis-gender woman, or were cis-gender man was partially supported. Largely, discrimination predicted outcomes of health-related quality of life alone**.** Discrimination and connection, combined, predicted outcomes of emotional well-being for people of color with lower socioeconomic status and general health for people of color with a bachelor's degree.

Discrimination alone predicted outcomes of physical functioning for people of color with lower socioeconomic status, a bachelor's degree, an advanced secondary degree, and who are cis-gender men. Discrimination alone predicted outcomes of role limitations due to physical health for people of color with lower socioeconomic status, a bachelor's degree, who are cis-gender women, and who are cis-gender men. Discrimination alone predicted outcomes of role limitations due to emotional problems for people of color with a bachelor's degree and for people of color who are cis-gender men. Discrimination alone predicted outcomes of emotional well-being for people of color with a bachelor's degree, advanced secondary degree, and cis-gender men. Discrimination alone predicted outcomes of social functioning for people of color with a bachelor's degree, an advanced secondary degree, or are cis-gender men. Discrimination alone predicted outcomes of pain for people of color with a bachelor's degree, an advanced secondary degree, who are cis-gender women, or who are cis-gender men. Discrimination alone predicted outcomes of general health for people of color who are cis-gender men. Discrimination alone predicted outcomes of anxiety for people of color with lower socioeconomic status, a bachelor's degree, an advanced secondary degree, who are cis-gender women, or who are cis-gender men. Discrimination alone predicted outcomes of depression for people of color with a bachelor's degree or who are cis-gender men. Discrimination alone predicted trauma symptoms for people of color with lower socioeconomic status, a bachelor's degree, an advanced secondary degree, who are cis-gender women, or who are cis-gender men.

Connection alone predicted outcomes of energy/fatigue health-related quality of life for people of color who have lower socioeconomic status, a bachelor's degree, are cis-gender women, or are cis-gender men. Connection alone predicted outcomes of general health for people of color who with lower socioeconomic status or who are cis-gender women. Connection alone also predicted outcomes of depression for people of color with lower socioeconomic status.

Neither discrimination or connection, combined or separately, were significant predictors of physical functioning for people of color who are cis-gender women; role limitations due to physical health for people of color with an advanced secondary degree; role limitations due to emotional problems for people of color who are cis-gender women; emotional well-being for people of color who are cis-gender women; social functioning for people of color who are cis-gender women; pain for people of color with lower socioeconomic status; and depression for people of color who are cis-gender women.

The findings here lend support to long standing literature that discrimination is a strong predictor of health outcomes for marginalized communities (Mays, Cochran, & Barnes, 2007; Ngamake, Walch, & Raveepatarakul 2016). Notably, the findings from this study also extend literature in highlighting that the role of connection is implicated in general health outcomes for economically disenfranchised people of color, something that has not been previously studied in this fashion. Though the statistical analyses say from this study say that connection does not predict well-being, RCT literature has demonstrated that disconnection inhibit one's ability to thrive and may give rise to symptoms of distress (Miller & Stiver, 1997; Walker & Rosen, 2004) like trauma, anxiety, depression, or even poorer quality of life. Conversely, the findings on connection as a predictor for people of color may suggest that connection is variably constructed across race and ethnicity. As such, the findings from this study may not accurately reflect the impact connection has on the presence of negative mental health outcomes.

Practical Implications

The first implication highlights need to re-visit clinical diagnostics as it relates to trauma. Previous research and guides on clinical practice have detailed therapeutic modalities to understanding and addressing race-based and identity-based trauma (Carlson, Endsley, Motley, Shawahin, & Williams, 2018). The findings from this research indicate there is a predictive relationship discrimination and trauma symptoms, which supports findings from previous empirical and theoretical literature (Carter, 2007). Therefore, as stated by other scholars, the diagnostic threshold for PTSD needs to be reconsidered or reconceptualized to include the insidious nature of marginalization and oppression (Holmes, Facemire, & DeFonseca, 2016; Nadal, 2018). In reconceptualizing trauma and PTSD, specific regard should be given to what is qualified as a Criterion A event. Future evolutions of the DSM-5, must begin to acknowledge and incorporate the pervasive nature of discrimination, systemic oppression, and marginalization of minoritized communities that may not immediately present as imminent death or threat to life. As suggested by the outcomes of the analyses in this study, every day, common-place discrimination can be so compounding that it predicts or worsens PTSD symptoms.

The findings from this study detail the deleterious nature of discrimination and connectedness on health outcomes. As such, there is a need to enhance the seemingly inefficaciousness of training and education for health care providers related to diversity, multiculturalism, and oppression for marginalized communities. In fact, more education and training on systems of oppression and how they present in various health care fields need to be central in pedagogical approaches to teaching and training health care professionals, otherwise the current models will continue to reify the harmful outcomes found in this study.

Training and education components that promote the collapse of oppressive narratives of marginalized communities may include and/or start with a) an increase in the minimum requirements of “diversity” coursework in degree requirements, b) a move away from deficit models of education about marginalized communities and toward models of equity and empowerment, c) a move towards national mandates that specific a training curricula specific to that field, d) specifically assessing for student/employee growth in areas of multicultural and cross-cultural practice by a trained and qualified professional, and e) keeping an intersectional framework in all training methods and modalities. The findings from this study support that diversity and multicultural enrichment in health care provider training and education can not solely emphasize how to avoid or stop discrimination. Rather, there must also be an emphasis on client-provider connection. This would require health care institutions and adjacent educational programs to rid paradigms of the medical model that sees the provider as expert. It would also require a movement beyond integrated care approaches that are patient center and toward identity affirmative care that centralizes cultural attunement.

Last, screening measures are a standard part of health care practice. As such, practitioners should consider ways to screen for client experiences of discrimination in health care settings to mitigate and address underutilization on an individual and systemic level. Screening tools, in part, demonstrate what providers deem important, and assessing for experiences of inequity should be central to that importance.

Limitations

This study is not without limitations and the analyses should be interpreted with caution and awareness of the limitations. First, the Discrimination in Medical Settings Scale was developed for experiences of discrimination in settings specific to physical health. However, this study looked at discrimination across multiple domains of health care, specifically physical health care and mental health care. Similarly, the Connection-Disconnection Scale was not developed or normed in relational experiences specific to health care providers. While the two scales have ample support for their use in medical and mental health care settings, this study is the first to use both measures in this fashion.

A second limitation of this study is that intersectionality was not robustly demonstrated due to sampling issues and missing data. To ensure the study was appropriately powered, some demographic positions had to be collapsed into meaningful categories which may not accurately represent a community given the diversity of representation in a collapsed group. As such, broad generalizations were made about race/people of color, gender, class, etc. when in fact there are differences across identities as suggested by prior empirical and theoretical research (Crenshaw, 1991, Bowleg, 2012). Notably, this approach is antithetical with core tenants of intersectionality that asserts the necessity to understand how interconnected systems of power bear down on marginalized communities and thus inform us about their unique experiences. Therefore, the inferences about discrimination and connection predicting outcomes for marginalized populations should be done with awareness that all people of color in the study were coded together. With regard to limitations in sample representation, many demographic variables were not able to be assessed in a manner that would allow for the study to be appropriately powered (i.e. sexual orientation, education lower than a bachelor’s degree, income greater than $35,000, and gender non-binary individuals).

A third limitation of this study was that the data collected from social media and Amazon Mechanical Turk were combined together despite their being evidence of variance between the two samples. This approach was used to ensure that the study was appropriately powered, but it should be known that the sample may not be representative of a true population. Similarly, the cross-sectional design of this study limits casual implications about the study variables.

The fourth limitation of this study is that length of time for client-provider relationship was not assessed in regard to the connection-disconnection independent variable. Length of time in relationship with a health care provider may or may not be a factor in the low predictive ability of connection in this study. However, it is important to note that longer relationships are not necessarily indictive of more connection. In fact, relational cultural theory asserts that mutual empathy and mutuality are some of the many components needed for healthy connection (Walker & Rosen, 2004). Nevertheless, assessing for length of the relationship may have allowed for a different quantitative design approach that would better assess the role of connection on health outcomes.

The fifth limitation of this study relates to the delineation of discrimination location. The measure in this study did not allow for assessment of analysis in on where the (health care) discrimination occurred (i.e. medical or mental health care setting) and the corresponding elevations in outcomes. This would be a beneficial area of future research.

Future Directions

The findings from this study have implications for future directions of similar inquiries. First, norming and developing the psychometrics of the DMS and CDS is an area of importance given then potential clinical implications each of these tools have on enhancing quality of health care services. Second, collecting qualitative data on the client-provider relationship may give more insight into the role of connection in these relationships and how it may, or may not, be implicated with discrimination. Third, exploring how discrimination may present different across different domains of health care (i.e. inpatient, outpatient, medical health, mental health, specialty care, etc.) for marginalized communities would be an area that would greatly contribute to the literature and extend and add specificity to the findings from this study. Fourth, future studies should utilize a methodological approach congruent with critical quantitative research (i.e. Covarrubias, 2011; Lopez, Erwin, Binder, & Chavez, 2018) and paradigms of intersectionality by focusing the inquiry on specific identities, in opposition to this studies approach of collapsing identities. Last, this study could be extended by conducting a moderation analysis to see if connection strengthens or weakens the relationship between discrimination and outcomes of underutilization or health; such a study may give more insight into the role of connection.

Conclusion

The aim of this study was to examine the impact of discrimination and client-provider connection have on outcomes of depression, anxiety, trauma, general health, and health care utilization. The results from this study largely support existing research that discrimination is predicative of health care utilization, mental health care utilization, general health, anxiety, depression, and trauma outcomes. The findings indicate that discrimination more frequently predicted medical and mental health care underutilization, depression, anxiety, and trauma than discrimination and connection combined. Though, connection did have some predictive ability on health outcomes for marginalized populations. The findings from this study highlight the necessity to develop interventions that diminish systemic oppression, particularly in health care, that often manifest as discrimination or lack of empathy.

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Appendix A

Sample of Beck Anxiety Inventory (BAI)

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by that symptom during the past month, including today, by selecting the response in the corresponding space in the column next to each symptom.

	Not at all	Mildly, but it didn't bother me much	Moderately, it wasn't pleasant at times	Severely, it bothered me a lot
Numbness or tingling	0	1	2	3
Feeling hot	0	1	2	3
Wobbliness in legs	0	1	2	3
Unable to relax	0	1	2	3
Fear of worst happening	0	1	2	3

Note: This is a sample of the clinical scale.

Appendix B

Sample of Beck Depression Inventory (BDI)

Please read each group of statements carefully, then pick out one statement in each group which best describes the way you have been feeling the PAST TWO WEEKS, Including TODAY. Select the number beside the statement you picked. If several statements in the group seem to apply equally well, circle the highest number for that group.

1. Sadness
    0 I do not feel sad
    1 I feel sad much of the time
    2 I am sad all of the time
    3 I am so sad or unhappy that I can't stand it
2. Pessimism
    0 I am not discouraged about my future
    1. I feel more discouraged about my future than I used to
    2 I do not expect things to work out for me
    3 I feel my future is hopeless and will only get worse
3. Past Failure
    0 I do not feel like a failure
    1 I have failed more than I should have
    2 As I look back, I see a lot of failures
    3 I feel I am a total failure as a person
4. Loss of pleasure
    0 I get as much pleasure as I ever did from things I enjoy
    1 I don't enjoy things as much as I used to
    2 I get very little pleasure from the things I used to enjoy
    3 I can't get any pleasure from the things I used to enjoy
5. Guilty Feelings
    0 I don't feel particularly guilty
    1 I feel guilty over many things I have done or should have done
    2 I feel quite guilty most of the time
    3 I feel guilty all of the time

Note: This is a sample of the clinical scale.

Appendix C

Connection Disconnection Scale (CDS)

Please read the vignette below and from the following 12 sentences, choose the **one sentence** that most accurately represents the kind of interaction that **commonly** occurs in your current relationship with your **healthcare provider**. *Please* read through all 12 sentences before you make a selection.

Vignette: *<u>You begin to tell your **healthcare provider** about something difficult or painful with regard to your physical and/or mental health, and your healthcare provider:</u>*

1. Walks away.

2. Changes the subject.

3. Is non-responsive (for example, won't talk until you change the subject).

4. Gets emotionally overwhelmed and shuts down.

5. Physically strikes out at you.

6. Gets defensive or hostile and verbally attacks or blames you.

7. Gets defensive but asks for more clarification regarding what you are talking about

8. Listens and asks for clarification, but: (a) offers **nothing** about their own response to your concerns and feelings, (b) **does not** convey an understanding of your experience, (c) begins to focus on their own pain and experience of the problem, (d) and/or tries to convince you to change your perspective on things.

9. Listens and asks for clarification, but: (a) offers **nothing** about their own response to your concerns and feelings, (b) and **does** convey a **minimal** understanding of your experience.

10. Listens and asks for clarification, but: (a) offers **nothing** about their own response to your concerns and feelings, (b) **does** convey **some** understanding of your experience, (c) but, tells you how you need to see things and how to fix what's gone wrong between the two of you.

11. Validates your feelings and (a) wants to know more about what you are talking about, (b) conveys an understanding of your experience, (c) apologizes for any role they might have played in upsetting you, (d) but, **shares little** in the way of their own thoughts and feelings about what you have said.

12. Validates your feelings and (a) wants to know more about what you are talking about, (b) conveys an understanding of your experience, (c) apologizes for any role they might have played in upsetting you, (d) and shares their feelings and thoughts in response to what you have shared.

For each item below, circle the **one number** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

1. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not have positive energy
Have a slight amount of positive energy
Have some positive energy
Have a moderate amount of positive energy
Have very much positive energy
Have an extreme amount of positive energy

2. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all empowered
Slightly empowered
Somewhat empowered
Moderately empowered
Very empowered
Extremely empowered

3. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all understood
Slightly understood
Somewhat understood
Moderately understood
Very understood
Extremely understood

4. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all tolerant of different opinions/feelings/needs
Slightly tolerant of different opinions/feelings/needs
Somewhat tolerant of different opinions/feelings/needs
Very tolerant of different opinions/feelings/needs
Extremely tolerant of different opinions/feelings/needs

5. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all able to be genuine
Slightly able to be genuine
Somewhat able to be genuine
Moderately able to be genuine
Very able to be genuine
Extremely able to be genuine

6. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

No sense of self-worth
Slight sense of self-worth
Some sense of self-worth
Moderate sense of self-worth
High sense of self-worth
Extremely high sense of self-worth

7. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

No increased knowledge about yourself **and** your healthcare provider
Slightly increased knowledge about yourself **and** your healthcare provider
Somewhat increased knowledge about yourself **and** your healthcare provider
Moderately increased knowledge about yourself **and** your healthcare provider
Highly increased knowledge about yourself **and** your healthcare provider
Extremely increased knowledge about yourself **and** your healthcare provider

8. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

No desire to relate more with others in the future
Slight desire to relate more with others in the future
Some desire to relate more with others in the future
Moderate desire to relate more with others in the future
High desire to relate more with others in the future
Extreme desire to relate more with others in the future

9. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all full of life
Slightly full of life
Somewhat full of life
Moderately full of life
Very full of life
Extremely full of life

10. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all able to act on behalf of yourself and what is good for the relationship
Slightly able to act on behalf of yourself and what is good for the relationship
Somewhat able to act on behalf of yourself and what is good for the relationship
Moderately able to act on behalf of yourself and what is good for the relationship
Very able to act on behalf of yourself and what is good for the relationship
Extremely able to act on behalf of yourself and what is good for the relationship

11. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all validated
Slightly validated
Somewhat validated
Moderately validated
Very validated
Extremely validated

12. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all open to different ways of thinking/feeling
Slightly open to different ways of thinking/feeling
Somewhat open to different ways of thinking/feeling
Moderately open to different ways of thinking/feeling
Very open to different ways of thinking/feeling
Extremely open to different ways of thinking/feeling

13. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all able to be real
Slightly able to be real

Somewhat able to be real
Moderately able to be real
Very able to be real
Extremely able to be real

14. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all feeling good about myself
Feeling slightly good about myself
Feeling somewhat good about myself
Feeling moderately good about myself
Feeling very good about myself
Feeling extremely good about myself

15. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

No understanding about myself **and** my healthcare provider
Slight understanding about myself **and** my healthcare provider
Some understanding about myself **and** my healthcare provider
Moderate understanding about myself **and** my healthcare provider
Very good understanding about myself **and** my healthcare provider
Extremely good understanding about myself **and** my healthcare provider

16. Select the **one option** that best represents how ***you*** would **commonly** feel after an interaction with your **healthcare provider**, like the one **in the vignette above:**

Not at all wanting interactions with others in the future
Slightly wanting interactions with others in the future
Somewhat wanting interactions with others in the future
Moderately wanting interactions with others in the future
Very much wanting interactions with others in the future
Extremely wanting interactions with others in the future

Appendix D

Discrimination in Medical Settings Scale (DMS)

When considering your identity, please select the best response for each statement that depicts your experiences of treatment/discrimination in health care settings.

	Never	Rarely	Sometimes	Most of the time	Always
You are treated with less courtesy than other people	1	2	3	4	5
You are treated with less respect that other people	1	2	3	4	5
You receive poorer service than others	1	2	3	4	5
A doctor or nurse acts as if he or she thinks you are not smart	1	2	3	4	5
A doctor or nurse acts as if he or she is afraid of you	1	2	3	4	5
A doctor or nurse acts as if he or she is better than you	1	2	3	4	5
You feel like a doctor or nurse is not listening to what you are saying	1	2	3	4	5

Appendix E

Health Care Underutilization (HCU)

Medical Health Utilization

In the past 24 months, was there a time when you needed medical care?

- Yes
- No

Did you delay or not get the medical care you thought you needed?

- Yes
- No

Mental Health Utilization

In the past 24 months, was there a time when you wanted to talk with or seek help from a health care professional about stress, depression, or problems with emotions?

- Yes
- No

Did you delay or not get the mental health care you thought you needed?

- Yes
- No

Appendix F

Posttrauamtic Stress Disorder Checklist for the DSM-5 (PCL-5)

Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then select the corresponding response to indicate how much you have been bothered by your health care experiences in the past month.

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of a stressful health care experience.	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful health care experience.	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful health care experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset with when something reminded you of the stressful health care experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful health care experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4

Note: This is a sample of the augmented clinical scale.

Appendix G

RAND 36-Item Short Form Health Survey (SF-36)

Choose one option for each questionnaire item.

1. In general, what would you say your health is:

1 Excellent
2 Very good
3 Good
4 Fair
5 Poor

2. Compared to one year ago, how would you rate your health now in general now?

1 Much better now than one year ago
2 Somewhat better now than one year ago
3 About the same
4 Somewhat worse now than one year ago
5 Much worse now than one year ago

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

	Yes, limited a lot	Yes, limited a little	No, not limited at all
3. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	1	2	3
4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf	1	2	3
5. Lifting or carrying groceries	1	2	3