


2021

Implicit Bias and Discrimination in Healthcare as Experienced Through an Intersectional Lens

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IMPLICIT BIAS AND DISCRIMINATION IN HEALTHCARE AS
EXPERIENCED THROUGH AN INTERSECTIONAL LENS

by

ANGELA YEN

A thesis submitted in partial fulfillment of the requirements for the Honors in the Major
Program in Psychology in the College of the Sciences and in the Burnett Honors College at the
University of Central Florida

Orlando, Florida

ABSTRACT

The purpose of this study was to better understand the way that intersectional identities affect one's perception of one's healthcare experience. Many previous studies focus on one facet of the minority experience, such as race or sexual orientation, and even then, limit it to a comparison between the majority population and one small subsection of the population of interest (ex: studying only African-Americans as racial minorities and disregarding other minority races). This study was more of a broad survey that sought to account for the unique intersection of different minority identities that one may possess and which ultimately affects how they are perceived and treated in society. This study surveyed 115, primarily college-aged, participants that fell into one of four categories: White/Caucasian and Cisgender/Heterosexual, White/Caucasian and LGBTQ+, Racial Minority and Cisgender/Heterosexual, and Racial Minority and LGBTQ+. Participants were asked to complete an open-ended survey and a Likert scale to rate and review their experiences with healthcare in general, and in regards to their identity. Results showed that although minority participants, especially those who were double minorities (racial minority and LGBTQ+) did not always explicitly express being discriminated against, they often showed it through other ways, such as being more likely to report distrust of their healthcare provider or an unwillingness to seek healthcare despite possessing health concerns. LGBTQ+ individuals were also much more likely to report discriminatory practices in healthcare than racial minorities or the majority group on a statistically significant level. This indicates that minority identities predispose individuals to lower quality of care and this health discrepancy manifests at different intensities based on an individual's specific minority makeup.

ACKNOWLEDGEMENTS

I'd like to thank my thesis chair, Dr. Valerie Sims, for guiding and coaching me through this process, without whom I would have been hopelessly lost and discouraged. I'd also like to thank Michael Nunes for not only helping me find an audience and launching point for my initial research through the LGBTQ+ Services department at the University of Central Florida but also for supporting me and being my mentor and friend during my undergraduate years.

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LIST OF NOMENCLATURE

LGBTQ+Lesbian, Gay, Bisexual, Transgender, Queer, and any non-heterosexual or cisgender identity

Cisgender.....an individual whose gender matches the sex they were assigned at birth

Cishetdenotes someone who is both cisgender and heterosexual

POC..... stands for Person of Color, meaning someone who is not White/Caucasian

Coming Out/Come out.....refers to the process of an LGBTQ+ individual revealing their identity

INTRODUCTION

Medicine is one of the most highly respected professions (Smith and Ballard, 2021) and as such, often is excluded from the critical examination that monitors and regulates other professions. In fact, it is often regarded as an objective study that can be trusted against social, political, and economic influences. This high regard can lead to oversight and the perpetuation of standards and ideals that drastically lowers the quality of care and negatively impacts a physician's ability to treat patients (Louie & Wilkes 2018). People go to doctors, physicians, and other healthcare providers hoping for expert care and treatment but sometimes are unknowingly subjected to bias that negatively impacts their health in drastic ways. This is an issue of utmost importance as the need for medical care is a universal issue, applicable to everyone regardless of race, sex, religion, cultural background, or socioeconomic status. In the present study, we hope to explore how implicit biases held by healthcare professionals impact their patients' care and treatment.

Implicit Bias

Implicit bias refers to the attitudes and stereotypes that one may unconsciously hold which can be pervasive, affecting one's perception and actions without conscious acknowledgment (Brownstein 2019). These implicitly held biases can differ in degree from person to person as well as in type and is a universal phenomenon that transcends identity and borders. These biases can often be opposite of what one outwardly declares and believes, in what is defined as explicit bias which is a conscious form of bias "processed neurologically at a

conscious level as declarative, semantic memory, and in words” (Papillon). Since one does not perceive their implicit biases and thus may be resistant to acknowledging them, it can often be much harder to unlearn them as compared to explicit biases (Hoffman 2015). However, it is of the utmost importance to recognize and identify the effects of implicit biases as they can manifest in our actions, decision making, and social relationships, causing real-life effects that can affect another person’s well-being and life.

Implicit bias can affect our personality, actions, and demeanor without our conscious acknowledgment of it. How then can we study something that we are not aware of? The most common test is the Implicit Association Test (IAT) which is a test intended to measure the presence and strength of implicit biases by pairing a given stimulus (such as African-American pictures, or related words and objects) with judgment words (such as good/happy and bad/sad) and tracking a participant’s reaction time in pairing the stimulus with the words denoting good and bad. The ability to pair a certain concept or stimulus with either good or bad quickly indicates a high association of that concept with that judgment while a slow reaction time indicates a low association of a concept with the judgment word. The IAT is widely used in studies on implicit bias and is often the sole measure used. For example, in a study by Dovidio et al. (2002), researchers tested participants’ implicit bias with an IAT and then had the White participants interact with either a White confederate or a Black confederate. Results showed that the participants’ pro-White attitudes, as measured by the IAT, predicted their non-verbal interactions with the confederates, being much more friendly and open with their White partners and colder and less receptive towards their Black partners despite the fact that the participant did feel that they were friendly, no matter the race of their conversational partner.

Another study concerned with implicit bias was conducted by Levinson (2007) where participants were asked to recall details about a story they read a few minutes prior and researchers found that people were more likely to remember or misremember information that conformed to their racial stereotypes such as the propensity to remember African-Americans as being aggressive. These results were also shown to be unrelated to explicit biases. Levinson pointed out that these types of tendencies can cause jurors to inaccurately represent a defendant and misjudge them due to implicit racial beliefs.

Bias also can be found in other life-changing realms such as that of healthcare. Research has shown that implicit biases can lead to differences in the treatment of an individual due to race despite the presentation of identical symptoms, which has very serious consequences. Mismanagement of symptoms and diagnoses can often mean the difference between suffering and healing, or even life and death. This type of biased behavior has been shown across different medical specialties. For example, research has shown that pediatricians with pro-White tendencies will reduce the amount of narcotics they prescribe to an African-American patient that displays the same symptoms as a white patient (Sabin and Greenwald 2012). Implicit pro-White biases were tested with three separate IATs. Patel et al. (2019) employed the same test and found the same trend in dentists. Researchers tested participants' implicit bias with IATs and explicit bias with questionnaires that included clinical scenarios of patients with a decaying tooth, along with associated symptoms, and asked for treatment recommendations, the strength of recommendation, and perceived patient cooperativeness. They found that dentists with implicit pro-White biases were more likely to recommend extraction for African American patients and a root canal treatment for White patients, irrespective of the severity of the patient's

condition, meaning that they tended to deem African-American patients' decayed tooth to be less restorable than a White patient's decayed tooth.

Healthcare providers themselves are not the sole source of blame for these disparities in care, as much of what they learn also comes from biased data. Dresser (1992) points out how most biomedical studies are conducted on white men, despite the fact that there are physiological differences between individuals of different genders and races and as such, the quality of care may be compromised when physicians expect to see certain symptoms as a sign of a diagnosis or expect all patients to respond to a particular treatment in the same way.

Racism in Healthcare

Research has been conducted into the presence of and effect of implicit bias in healthcare and it has shown that many healthcare providers hold implicit biases towards certain races that may cause them to misdiagnose a patient or treat their symptoms less aggressively than others. Such disparities are widely documented and various specific aspects of this issue have been investigated. Green et al (2007) presented internal medicine and emergency medicine residents with clinical vignettes of patients that suffered from acute coronary syndrome, as well as a questionnaire and IAT to determine biases. This study reported that doctors who held no explicit biases but were found to have implicit biases favoring white patients over black patients also were less likely to treat black patients with thrombolysis than white patients despite presenting with the same symptoms. Thrombolysis is a type of treatment meant to address blood clots in the vessels and the primary effective treatment of heart disease. Similarly, a 2007 study by the National Academy of Medicine, formerly the Institute of Medicine (IOM), reported that across

all classes of illnesses, afflictions, and diagnoses, African-Americans were less likely to receive procedures and more likely to experience worse healthcare than their white counterparts even after adjusting for such factors as health insurance, socioeconomic status, and education (Smedley, Stith and Nelson, 2007). The data suggest that those who belong to an ethnic minority often experience worse healthcare due to biases that doctors themselves are often unaware of. A meta-analysis by FitzGerald and Hurst (2017) found that across 35 studies, implicit biases had a significant positive correlation with lower quality of care. This issue is prevalent and individuals who identify with a racial minority may already be aware of such bias.

Hausmann et al. (2013) reported that black patients tended to trust their physicians less than white patients showing that racial discrimination in healthcare is institutional and widespread leading to a general distrust of the profession by the targeted population. Another study conducted interviews and chart reviews of patients with systematic lupus erythematosus to determine perceptions of racism and showed that patients' lack of trust in their physicians was related to perceived racism of the healthcare provider which also correlated with moderate to severe depression in such patients indicating that the discrimination faced by patients from healthcare providers can worsen their health (Vina et al. 2015). Racism in healthcare has had a long history, especially for African-Americans, which dates back to the time of J. Marion Sims, the father of gynecology, performing experiments on enslaved women without anesthesia to the Tuskegee Syphilis Experiment which purposefully misled and allowed African-Americans with syphilis to die even when penicillin was found to be an effective treatment. (Feagin & Bennefield 2014).

Of course, this general and pervasive trend of people of color and individuals identifying with minority statuses is not a simple issue, and as the American Bar Association says in an article published on the subject, “If providers’ implicit racial biases contribute to excess morbidity and mortality among people of color, we must recognize that individuals with implicit biases practice medicine within and alongside structures that compromise the health of people of color” (Bridges 2018). People of color repeatedly and consistently receive a lower quality of care and this is an institutionalized epidemic that manifests through the actions of healthcare providers who play into this bias. This was startlingly apparent in the COVID-19 pandemic. Although COVID-19 affects people of all races the same physiologically, this has not been reflected in the mortality rates which have been disproportionately affected African-Americans to a much greater degree. However, the disturbing thing is that this is not an anomaly, but rather a reflection of the trend that has pervaded for decades (Bonner et al. 2020).

Homophobia in Healthcare

Another related issue is how individuals who identify as LGBTQ+ experience the distribution of healthcare. Albuquerque et al. (2016) conducted a systematic literature review of research conducted between 2004 and 2014 on LGBTQ+ populations and healthcare and found that pervasive heteronormative attitudes of healthcare providers restrict access to healthcare by LGBTQ+ individuals. This finding shows that LGBTQ+ individuals experience a limited, often skewed form of healthcare that fails to encompass the breadth and depth of concerns that LGBTQ+ identified individuals may possess. A survey conducted at a US medical school showed that medical students and residents reported a significantly lower ability and comfort in asking LGBTQ+ patients about their sexual health and history, which leads to neglect of an

integral part of LGBTQ+ health (Hayes & Bing-You 2015). In fact, healthcare providers, in general, seem ill-equipped to treat LGBTQ+ individuals and are lacking in knowledge about the LGBTQ+ community. Nowaskie and Sowinski (2018) surveyed 127 primary care physicians and found that most of them felt underinformed about LGBTQ+ health issues and needs and that their overall accuracy on the LGBTQ+ community was little better than 50%. That means that even if a physician was free of anti-LGBTQ+ bias, they would still likely administer lower-quality care and treatment to their patient due to a simple lack of knowledge and training with LGBTQ+ individuals. However, oftentimes, healthcare providers fall victim to both ignorance and bias.

A comprehensive psychiatric, medical, and sociocultural review of journal articles, survey reports, and news articles on the effect of homophobia in medicine has shown that disdain for the LGBTQ+ community has often steered such individuals away from pursuing healthcare which compromises their health and increases their risk of falling victim to infections, diseases, and afflictions (Ohanlan et al. 1997). LGBTQ+ individuals surveyed on their mental health behaviors, access, and barriers revealed that they are at a higher risk for developing depressive disorders than their cisgender and heterosexual counterparts but usually do not receive the specialized mental healthcare that they require (McNair & Bush 2016). Another survey that focused on Taiwanese female sexual minorities found that participants not only had a higher risk for depressive symptoms but also for low self-esteem due to internalized homophobia and lack of social support (Wang et al. 2020). This indicates that LGBTQ+ individuals, regardless of cultural background, are predisposed for certain conditions that require regular, consistent, and competent healthcare, which makes a lack of access to these resources very distressing.

Medical mistrust is prevalent among LGBTQ+ identified individuals and alienates them from pursuing healthcare. Quinn et al. (2018) conducted a study on black gay males and found that many of them were skeptical of the healthcare system and/or had previous bad experiences with healthcare that dissuaded them from accessing PrEP, a preventative treatment for HIV, a disease that the population in question is particularly vulnerable to. This is a concerning finding given the high negative risks of HIV and its prevalence among gay males and poorer communities. Not only does physician homophobia lead to this distrust, but also the prevalence of years of conversion therapy, the now mostly illegal practice of turning an LGB individual straight which led to anxiety, depression, and self-harm, has caused bad blood between LGBTQ+ individuals and the medical field (Taglienti 2021). On the other hand, when healthcare providers are welcoming of their LGBTQ+ patients and dedicated to ensuring the comfort of such patients, patient trust in healthcare providers are more likely to increase and as such, increase disclosure to healthcare providers, avoidance of health risks, and adherence to healthcare seeking, which indicates that a welcoming environment, conscious of LGBTQ+ patients can help to foster positive perceptions of healthcare and consequently increase one's health (St. Pierre, 2018).

Intersecting Identities as a Target for Bias

Although many facets of implicit bias in healthcare have been studied, one commonly overlooked aspect of such research is the intersectionality of minority identities. Studies that focus on a single facet of a person's identity, like race or gender, give great insight into bias but are severely limited in not recognizing how an individual's other identities may contribute to their healthcare experience. This study aims to explore how belonging to more than one minority

group may impact one's experience of healthcare in a more comprehensive manner. Focusing on a single aspect of an individual's identity can often lead to limited conclusions or even errors. A study that surveyed individuals with Type 2 diabetes and conducted analyses of behavior health measures in relation to Type 2 diabetes found that being black and a woman led to an increased likelihood of health disadvantages as compared to Whites or men, a conclusion that would not have been made if the study focused solely on a single gender or race (Naqvi et al. 2019).

Expanding on research by Chisolm-Straker and Straker (2017), there are many identities that are underrepresented in such studies, as most research in implicit bias focuses on African-American individuals which limit the generalizability of results to other races and minority groups. Other groups that often face barriers in accessing healthcare, as well as decreased quality of care by healthcare professionals, include women, the LGBTQ+ community, people of low socioeconomic status, and immigrants. For example, being an immigrant can affect how one's racial minority status influence healthcare quality. A study by Lauderdale et al (2007) indicated that Asians who were immigrants experienced discrimination as opposed to US-born Asians who reported a lack of discrimination while US-born Latinx individuals reported discrimination that seemed to be based on SES, a trend that was absent in immigrant Latinx populations. The study also found that speaking a foreign language increased discrimination, regardless of whether the individual was an immigrant or not which shows that the intersection of immigrant status with race can also influence how one perceives medical quality and care.

Additionally, a study by Vanhusen (2019) indicated that individuals who possessed multiple marginalized identities often had bad experiences with healthcare providers and this subsequently led such individuals to utilize such services less frequently, at the expense of their health and wellbeing. Agénor et al. (2014) conducted a focus group on black lesbian, bisexual

and queer women and their experiences with healthcare. Common themes of the study centered around patient-provider communication and included sub-topics such as heterosexism, heteronormative assumptions, and racism with patients reporting anxieties and fears around multiple types of discrimination due to their multiple minority identities. Subjects consequently reported preferring providers who shared the same race, gender, and sexual orientation and were knowledgeable about same-sex health. This study indicates how belonging to multiple marginalized communities increases the opportunity for discrimination and bias and as such, should be studied separately or in addition to studies centering around a single marginalized identity since one cannot shed any aspect of their identity when pursuing healthcare, as in life and as such, all aspect of an individual's identity should be taken into account. Another such study which conducted focus groups with transgender people of color found that every one of the 39 participants reported a negative experience with healthcare and cited their health providers' assumptions about their identity as the main cause. The participants were also fearful of disclosing their entire identity, often fearing racism at LGBTQ+ centered healthcare locations or choosing to conceal their gender identity at providers of the same minority race (Howard et al. 2019). Multiple minority identities can also limit one's access to healthcare. One cross-sectional survey showed that being disabled limited a woman's ability to access maternal care in Nepal due to discrimination but being disabled and Dalit, the lowest social caste in India, decreased the likelihood of receiving post-natal care as compared to disabled non-Dalit women which exemplify how multiple minority identities can stack discrimination (Devkota et al. 2021).

Healthcare providers should be able to be trusted by those they treat and yet, bias and discrimination have often lead many to forego such care due to negative experiences and thus impact their health adversely. This leads to the production of statistics that mark specific

populations as more susceptible to certain diseases and with a higher mortality rate (Population Reference Bureau 2002; Rogers et al. 2017). As such, it is essential to understand the intricacies of this phenomenon. The purpose of this study is therefore to examine how the intersection of minority identities can impact one's healthcare access and quality and help us gain a better understanding of how such identities may or may not increase health risks. In this study, participants will be surveyed on their healthcare experiences which will be correlated with their specific identities, focusing specifically on racial status and LGBTQ+ status.

Based on previous literature and studies, we present the following hypotheses in anticipation of our study on the quality of care for individuals with minority identities:

Hypothesis #1: People who identify as a racial minority perceive a lower quality of care from healthcare professionals as compared to White/Caucasian individuals.

Hypothesis #2: Individuals who identify as LGBTQ+ (Lesbian, Gay, Bisexual, Transgender, or Queer) perceive a lower quality of care from healthcare professionals as compared to cisgender heterosexual individuals.

Hypothesis #3: Individuals with intersecting minority identities perceive the most discrimination in healthcare, but the degree of which differs depending on exactly which intersecting identities they possess.

Hypothesis #4: Individuals who identify as a racial minority are more likely to perceive a decreased quality of care as compared to LGBTQ+ identified individuals.

METHOD

Participants

This study consisted of 115 participants. All participants were over 18 years of age with a mean of 20.27 years and a standard deviation of 3.66 years. The specific age composition of participants is detailed in Figure 1. 28 participants identified themselves as part of the LGBTQ+ community, 86 did not. 80 participants identified as a racial minority while 34 identified as White or Caucasian. 19 participants identified as both LGBTQ+ and a racial minority while 25 participants did not identify as either and comprised the “no minority” control group. The gender composition of participants was 63 people who identified as female, 44 who identified as male, and 7 who identified as nonbinary. LGBTQ+ and racial minority composition of participants are depicted in Figure 2. Participants were recruited through SONA, the recruitment system of the Psychology Department at the University of Central Florida, and by flyers placed in approved on-campus buildings. The study was also made available through Facebook to reach people who fit the criteria.

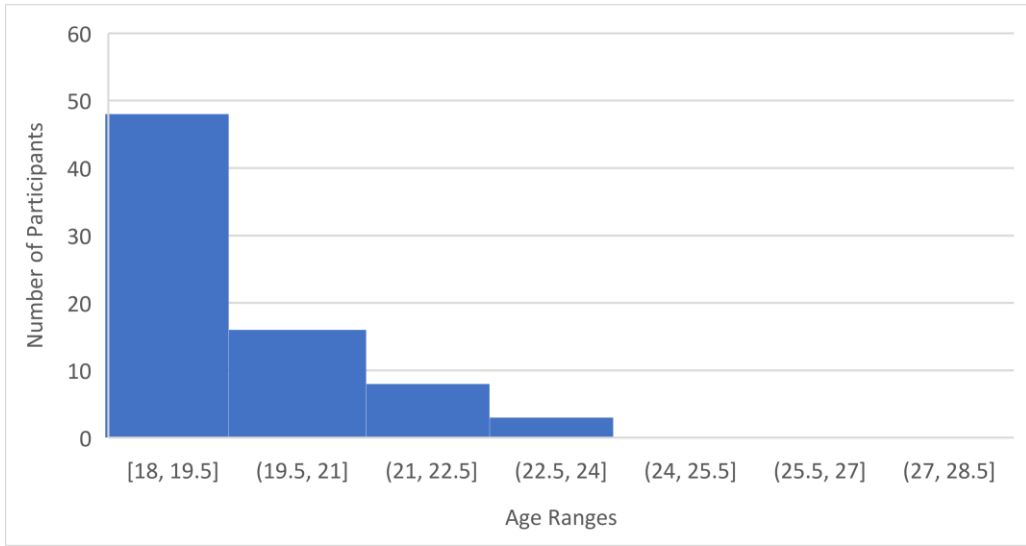


Figure 1: Age Composition of Participants

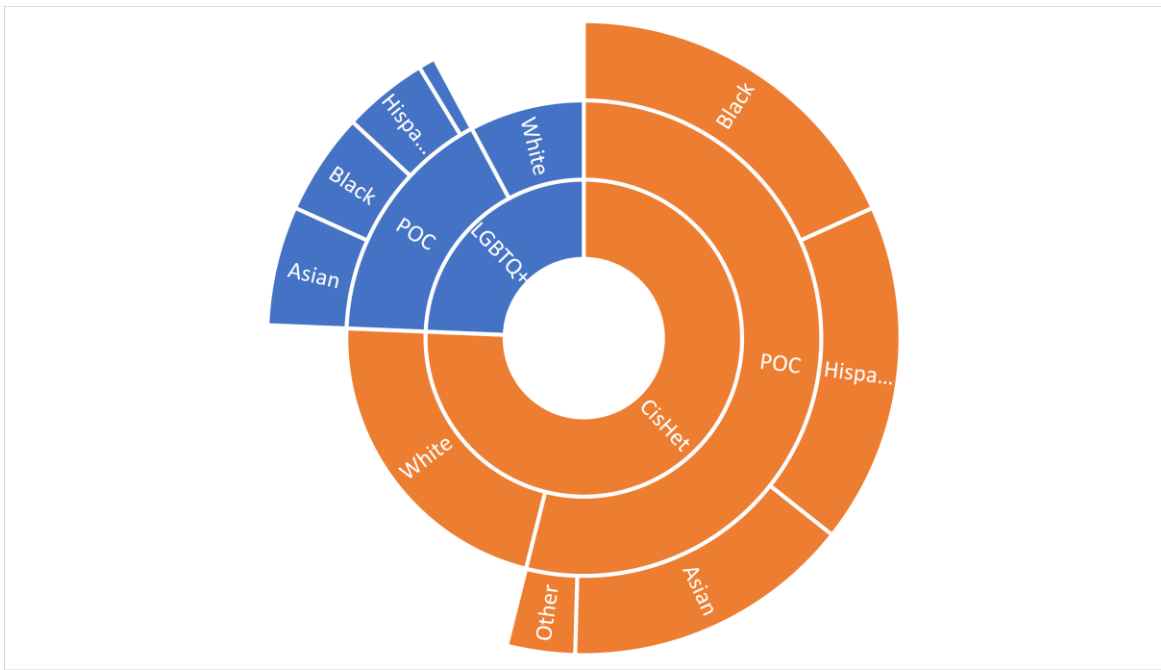


Figure 2: LGBTQ+ and Racial Composition of Participants

Materials

Demographic Survey. Participants were asked about their ethnic and sexual background as well as their healthcare status, among other basic demographic information. Specific questions are included in Appendix B.

Healthcare Questionnaire. Participants were asked a series of open-ended questions regarding their specific experiences in healthcare in relation to their minority identities in which they described specific instances of discrimination or bias. This questionnaire was designed by the researcher to allow participants the ability to elaborate on their experiences in a way that is meaningful to them while also targeting specific parts of the healthcare experience. Specific questions are included in Appendix C.

Likert Scale. Participants were asked to rate how likely they felt they would agree with a given statement related to their healthcare experience on a 7-point scale. This scale was designed specifically for this particular study by the researcher based on results from previous studies on the topic. Specific statements are included in Appendix D.

Procedure

Participants were asked to complete an online survey. They were first informed of the purpose of the study and then asked to indicate consent before beginning. During the study, participants were asked demographic information, as relevant to the study, such as their racial identity, sexual orientation, and healthcare status before being asked a series of questions regarding their healthcare experiences. They were given as much time as necessary to respond

and write down their thoughts with no word limit on the open-ended questions. When they were finished with the questionnaire, the survey ended and they were granted credit, if applicable.

Analysis Plan

In order to generate meaningful findings from our collected data, we conducted semantic analysis by noting the themes and word counts of the responses we received from participants. We identified the prevalence of words with negative connotations in regard to subjects such as but not limited to, race and sexuality. We looked for significant patterns in experiences in healthcare that are tied to specific identities and statuses rather than being universal to all or many groups in order to more clearly understand how certain identifiers affect the distribution of healthcare. ANOVA analysis was conducted, and statistical significance was calculated to quantify our results. Individuals were grouped by their minority identities into four groups: the no minority control group (White/CisHet), the two single minority groups (White/LGBTQ+ and PoC/CisHet), and the double minority group (PoC LGBTQ+). Patterns in responses were found based on an individual's inclusion in these groups.

RESULTS

Likert Scale Analysis

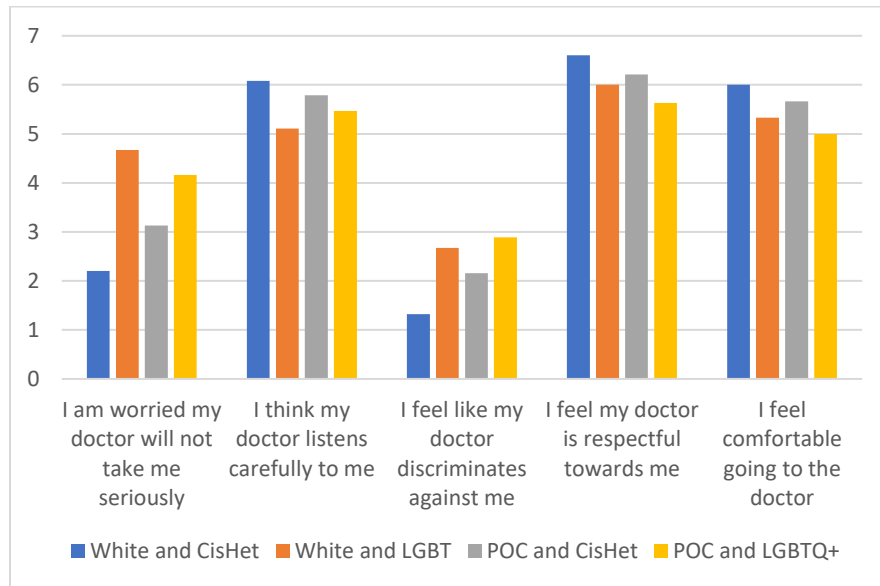


Figure 3: Mean Results of 7-Point Likert Scale on Experiences in Healthcare Based on Identity

Statement	Significance		
	LGBTQ+	PoC	LGBTQ+*PoC
I am worried my doctor will not take me seriously	.001	.632	.104
I think my doctor listens carefully to me	.058	.918	.329
I feel like my doctor is respectful towards me	.025	.149	.972
I feel like my doctor discriminates against me	.005	.144	.400
I feel comfortable going to the doctor	.067	.346	.988

Table 1: Statistical Significance of Likert Scale Answers

Participants were asked to rate their agreeability to specific statements which have been replicated in Table 1 under the heading “Statement”. The mean results of each of the four groups are included in Figure 3. We can see that for all six points, our control group, that of individuals

who are both White and Cisgender/Heterosexual, were more likely to score the highest (indicating high agreeableness) on positive statements like “I think my doctor listens carefully to me” and lowest (indicating low agreeableness) on negative statements like “I am worried my doctor will not take me seriously” than any other group which is as expected given that those in the control group are less likely to be subject to bias. On the other hand, LGBTQ+ participants regularly score in a trend opposite of our control group, always scoring the highest on negative statements and lowest on positive statements. Participants who identified as both White/Caucasian and LGBTQ+ scored the highest in terms of agreeing with the statements that said “I am worried my doctor will not take me seriously” and the lowest on the statement “I think my doctor listens carefully to me”. Participants who identified as both a racial minority and LGBTQ+ scored among the highest for the statements “I am worried my doctor will not take me seriously” and “I feel like my doctor discriminates against me” while scoring among the lowest for the statements “I feel my doctor is respectful towards me” and “I feel comfortable going to the doctor”. Participants who identified as a racial minority but were cisgender and heterosexual tended to fall between the results from White and CisHet individuals and LGBTQ+ individuals of either racial designation, never scoring higher than the LGBTQ+ groups on negative statements or lower on positive statements, and vice versa for the White CisHet control group. A 2x2 ANOVA, studying the effect of race against the effect of sexuality was used to examine the responses to each statement. Table 1 shows the significance for the main effect of each and the interaction between the two variables. At $p < 0.05$ level of significance, we can see that the results obtained from LGBTQ+ individuals are statistically significant on three statements, indicating a significant propensity towards a lower quality of care.

Free Response Questionnaire

Word Count

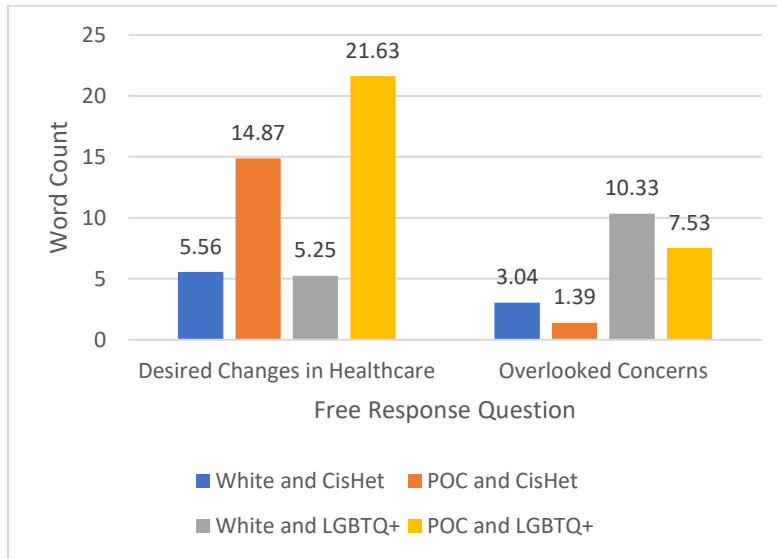


Figure 4: Mean Word Count for Free Responses in Healthcare Questionnaire Based on Identity

Free Response	Significance		
	LGBTQ+	POC	LGBTQ+*POC
Desired Changes in Healthcare	.473	.005	.431
Overlooked Concerns	.009	.380	.819

Table 2: Statistical Significance of Word Count in Free Responses

As part of the healthcare questionnaire, participants had to answer open-ended free-response questions on their healthcare. The two general questions, meaning applicable to all participants, asked for changes they wished to see in their healthcare experience as well as concerns that they felt physicians and other healthcare providers have overlooked or dismissed. Mean results are summarized in Figure 4, with empty responses of word count 0 also included in the mean estimation. Individuals who identified as White and CisHet consistently had one of the

lowest word counts for both questions, however, this seems to be the only consistency. Individuals who identified as a PoC and CisHet had one of the higher word count responses when asked for changes they wished to see in healthcare, but the lowest word count when asked about what concerns they felt healthcare providers had overlooked. Individuals who identified as White and LGBTQ+ had the opposite trend where they had the lowest word count when asked about their desired changes in healthcare but the highest word count when asked about being overlooked. Our double minority group, which was comprised of individuals who are both LGBTQ+ and a racial minority, had the highest mean word count for changes they wished to see in healthcare but had much less to say when asked about being overlooked by healthcare workers. The data shows us that minority individuals are more likely to not only respond to such questions but also to elaborate. We applied a 2x2 ANOVA to study the effects of being a racial minority and LGBTQ+ and the significance of each variable and their interaction is documented in Table 2. At $p < 0.05$ level of significance, we see that being a person of color was significant for wanting certain changes in healthcare while at the same level of significance, we can see that being LGBTQ+ was statistically significant for having overlooked concerns. Interestingly, there is no significant interaction between being both a racial minority and being LGBTQ+. It seems that different minority identities lead individuals to focus on different aspects of their perception of healthcare.

Significant Topics

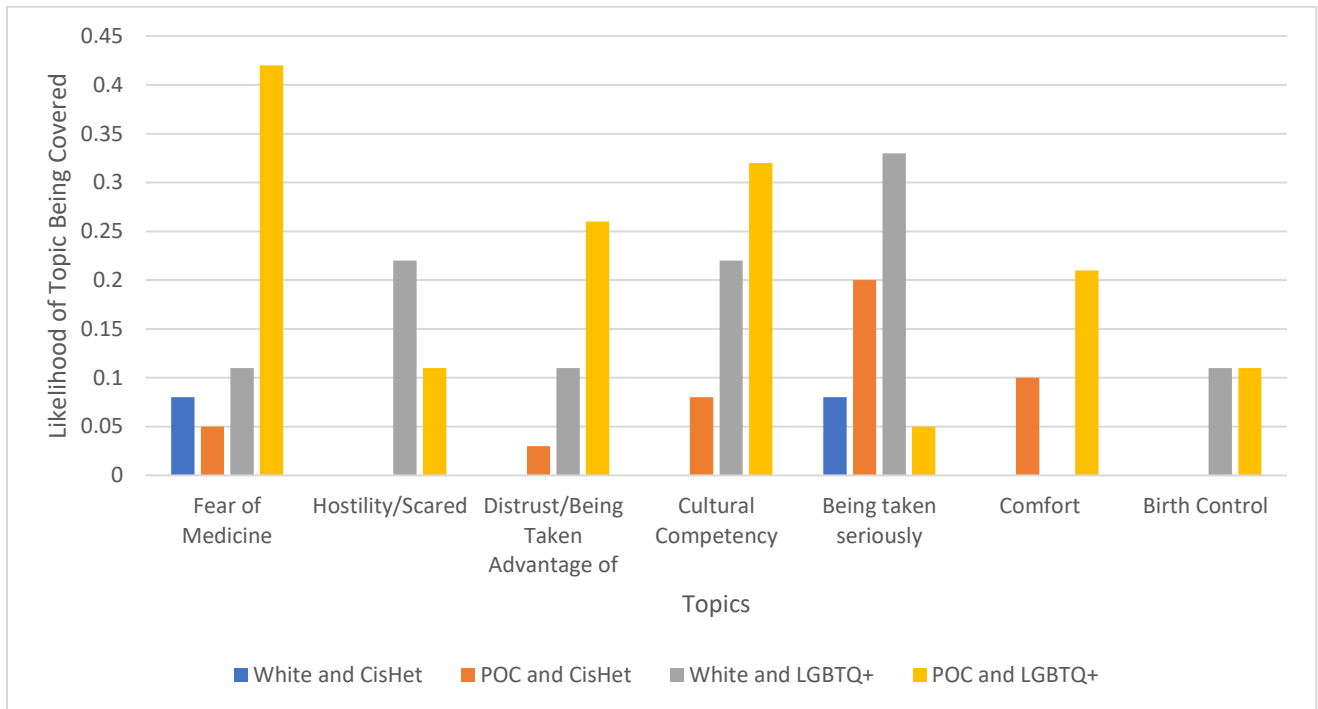


Figure 5: Topics Covered by Participants in Free Responses

Topic	Significance		
	LGBTQ+	PoC	LGBTQ+*POC
Fear of Medicine	.006	.054	.020
Hostility/Scared	.001	.156	.156
Distrust/Being Taken Advantage of	.003	.108	.298
Cultural Competency	.002	.223	.936
Being taken seriously	.522	.337	.021
Comfort Conveyed by Physician	.394	.020	.394
Birth Control	.004	.936	.936

Table 3: Statistical Significance of Topics Covered in Free Responses

Looking further than simple word count and a participant's willingness to divulge their thoughts, we also analyzed the content of their free responses. The topics that are plotted in Figure 4 are some of the main topics that participants consistently mentioned in their responses and were not explicitly asked for. Responses were rated for inclusion or exclusion of a topic, rather than length, and these topics are drawn from free-response questions that asked questions such as "*What barriers do you experience in accessing healthcare?*", "*Why don't you go to the doctor more often?*" as well as the two questions covered in the above section and mentioned in Figure 3. A 2x2 ANOVA was conducted on the variables of LGBTQ+ status and race and the significance of each and their interaction is charted in Table 3.

Fear of Medicine

The first topic that is much discussed is the fear of medicine and the practice of healthcare in participants. We see that individuals who are both LGBTQ+ and a racial minority overwhelmingly expressed fear in regards to their healthcare experience, as seen in Figure 5. Although this is a broad concept that ranges from a fear of needles to fear of discrimination, LGBTQ+ racial minorities far outstrip the other groups and are statistically significant ($P < 0.05$) as seen in Table 3. This particular topic is also significant for individuals who identify as LGBTQ+ who report a similar concern. Participants who identified as CisHet were much less likely to discuss this topic, with those who identified as a racial minority being the least likely as compared to their white counterparts.

Hostility/Scared

The next topic is hostility from a healthcare provider or the fear that one will experience hostility, specifically in regards to one's identity. As we can see from Figure 5 and Table 3, individuals who identify as LGBTQ+ are the only ones who discuss this topic and at a significant level, with White LGBTQ+ individuals being twice as likely to discuss this topic as PoC LGBTQ+ individuals. LGBTQ+ individuals talk about being scared to reveal their sexuality to their healthcare providers in case they are treated differently and some report increased hostility due to coming out.

Distrust/Taken Advantage Of

Another common theme among responses was participants' distrust of their physicians or their worry that they would be taken advantage of by their healthcare providers. Participants whose responses fell into this category often explicitly used the terms "distrust" and "taken advantage of". Participants who were White and CisHet (control group) did not discuss this topic at all. Participants who were PoC and CisHet did discuss this topic but much less than LGBTQ+ individuals. PoC LGBTQ+ individuals were more than twice as likely as White LGBTQ+ individuals to discuss this topic but identifying as LGBTQ+, in general, was statistically significant for being likely to report distrust of healthcare providers.

Cultural Competency

Participants also reported either a desire for cultural competency in their healthcare providers or an appreciation for their healthcare providers' respect for their identities. Again, our no minority control group does not discuss this at all, neither in terms of desiring it nor experiencing it with their healthcare providers. Once again, PoC CisHet individuals discussed this topic but not to the extent that LGBTQ+ individuals did and LGBTQ+ status was statistically significant for mentioning this topic. LGBTQ+ individuals of either racial denotation reported wanting their healthcare providers to respect their identities and pronouns as well as being more sensitive to their individual differences based on their identities. The three minority groups (PoC CisHet, White LGBTQ+, and PoC LGBTQ+) also mentioned the health disparities for different racial groups, such as the higher maternal mortality for Black women as compared to other groups, showing an awareness of issues that may not necessarily impact themselves directly.

Being Taken Seriously

The fifth reoccurring topic among participants was the feeling or perception that their healthcare providers do not take them seriously or listen attentively to their concerns. Much of these complaints are drawn from the questions asking participants why they don't see a physician more often as well as the concerns they felt have been overlooked by healthcare providers. The results of this topic are surprising as our double minority group (LGBTQ+ racial minorities) were the least likely, even less likely than the no minority group, to report feelings of not being taken seriously to the point where identifying as both LGBTQ+ and PoC is statistically

significant. The single minority groups were the most likely to discuss this topic and report that their healthcare providers either do not take enough time with them, are quick to dismiss their concerns, or do not take them seriously. The results of this are interesting as this is one of two topics that are also covered by the Likert scale. In response to the statement “I am worried my doctor will not take me seriously” on the Likert scale, LGBTQ+ individuals of both racial denotations were statistically significantly likely to report high agreeableness to this statement (Table 1). What is interesting is that we can see this is corroborated by the findings in Figure 5 for White LGBTQ+ individuals, but not for PoC LGBTQ+ individuals.

Comfort Conveyed by Physician

The sixth topic focuses on comfort. Participants either mentioned wishing their physicians made them feel more comfortable, whether it be in their demeanor or their thoroughness, or commended their physicians for creating a comfortable environment. It seems that comfort is something that is not noted or important to White participants as neither group of either sexual denotation commented on this particular aspect (Figure 5) while PoC participants were keen to discuss the importance of being comfortable, at a level that was statistically significant (Table 3). PoC individuals who were also LGBTQ+ were even more likely than their CisHet counterparts to expound on this topic. This is the second topic also covered by the Likert scale by the statement “I feel comfortable going to the doctor”. However, the results are different from what we find for the Likert scale. Figure 3 and Table 1 show that although LGBTQ+ individuals are less likely to agree with the statement, this is by no means a statistically significant finding. The results from the free-response show that it is a topic mentioned with

significant regularity among PoC participants which suggests that although LGBTQ+ individuals are less likely to feel comfortable, it is PoC individuals who notice their comfort levels and feel it is an important aspect of their healthcare experience.

Birth Control

The last significant topic mentioned by participants was that of birth control. Participants mostly discussed it in a negative way, claiming that it was forced on them by physicians when they felt it was unnecessary or detrimental to their health. Interestingly enough, despite there being participants whose assigned sex was female in all four target groups, only LGBTQ+ individuals mentioned birth control at all. Both PoC LGBTQ+ individuals and White LGBTQ+ individuals discussed it with the same regularity.

Necessity of Healthcare

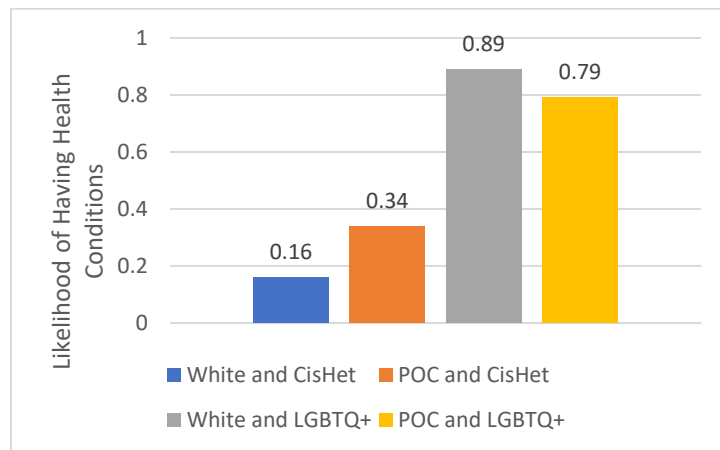


Figure 6: Mean Presence of Self-identified Concerning Health Conditions in Participants

	Significance		
	LGBTQ+	POC	LGBTQ+*POC
Self-Identified Health Conditions	.001	.681	.171

Table 4: Statistical Significance of Participants Who Have Concerning Health Conditions

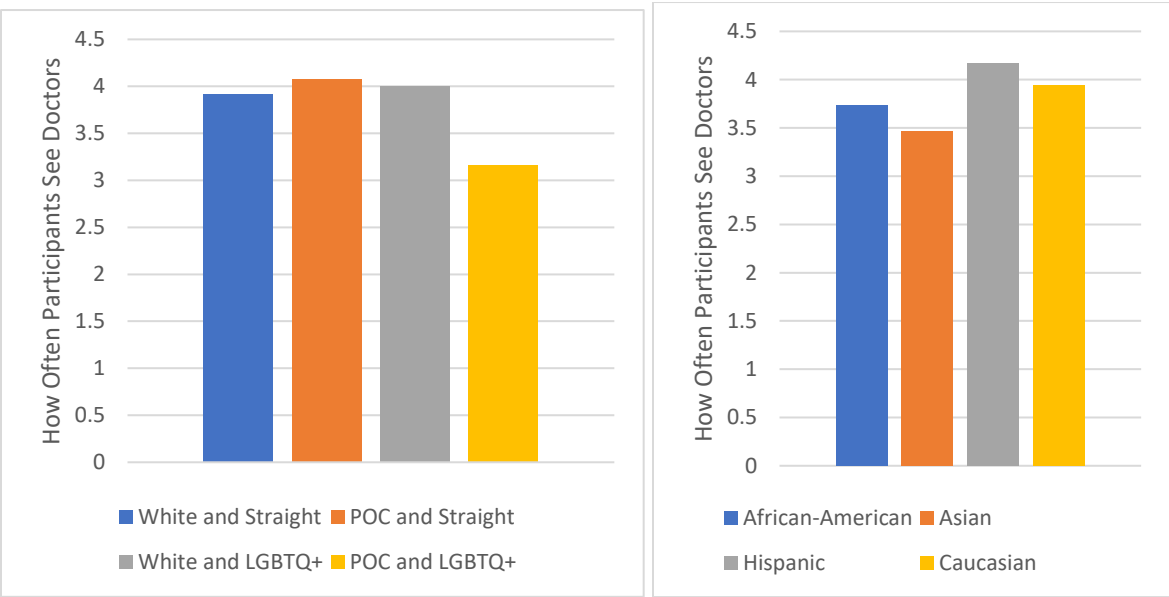


Figure 7: How Often Participants See Doctors on a 5 Point Scale

As part of our demographic surveys, we wanted to see if participants had health conditions that they self-identified as concerning, such as mental/mood disorders like depression and anxiety, chronic illnesses like HIV/AIDS or multiple sclerosis, or physical impairments such as poor vision or muscle weakness that would logically require the need of consistent and regular medical care. Looking at Figure 6 and Table 4, which documents the significance of an individual’s LGBTQ+ status and race and the interaction between the two variables, we see that

LGBTQ+ individuals do indeed report a high frequency of concerning health conditions, and such a finding is statistically significant with White LGBTQ+ individuals being more likely to report having such a health condition than their PoC counterparts. White and CisHet participants report the lowest likelihood of having self-identified concerning health conditions and PoC CisHet participants were the second least likely but were still two times as likely as their White counterparts.

We then looked to see how many of them actually see a doctor regularly, with regularity marked on a five-point scale with 5 being “*2+ times a year (or as recommended)*” and 1 being “*essentially never*”. The rest of the five-point scale is specified in Appendix C. The results are rather concerning since they show that individuals that identify as both LGBTQ+ and a racial minority are the least likely of the four groups to seek medical care regularly despite the fact that they score high on the need for such care. The other three groups seem to see a doctor with comparable regularity, however, there are slight differences between specific racial groups. Asians seem to be the least likely to pursue healthcare out of the three major racial minorities plotted and as compared to Caucasians. Asians actually score about a whole point less than Caucasians and about a point and a half lower than Hispanics, the highest-scoring group for doctor visits.

DISCUSSION AND ANALYSIS

The results of this study provided evidence supporting some of the hypotheses of this study which related to the lower quality of care minorities receive from healthcare professionals as compared to individuals who do not belong to a marginalized community. Hypothesis 1 stated

that racial minorities perceive a lower quality of care than White individuals. Although not statistically apparent in much of the data that was collected, the data showed that racial minorities are more likely to feel overlooked and less likely to feel comfortable in a healthcare setting. The lack of statistically significant results may stem from the racial composition of the participants, which was not equal among the races, possibly skewing data by placing more weight on the responses of participants in groups with few participants. However, assuming that the data is correct and representative of the target groups, then this shows that racial minorities do not perceive a lower quality of care on a significant regularity.

Hypothesis 2 stated that LGBTQ+ individuals perceive a lower quality of care than cisgender/heterosexual individuals. In contrast to Hypothesis 1, this is abundantly supported by the data which shows a statistically significant difference between LGBTQ+ individuals and cisgender/heterosexual individuals in many different ways, such as the number of health conditions, distrust of doctors, wish for changes in the healthcare system, and bad experiences with healthcare. However, like above, the group of LGBTQ+ participants is much smaller than that of cisgender/heterosexual participants so it is possible that the data is heavily influenced by the experiences of a few. Again, assuming that the data is correct and representative of the target groups, this shows that LGBTQ+ individuals perceive a lower quality of care than their CisHet counterparts as represented in a variety of ways, as described more specifically in the results. They are more likely to feel uncomfortable in healthcare settings, less likely to disclose information to their physicians, and feel that they are more likely to be discriminated against, all of which contribute to a perceived lower quality of care and possible detriments to their health.

However, the last two hypotheses were not supported by the data. Hypothesis 3 stated that those with intersecting minority identities, meaning being both a racial minority and belonging to the LGBTQ+ community, experienced the worst quality of care overall while Hypothesis 4 stated that racial minorities perceive a worse quality of care than LGBTQ+ individuals. The reasoning behind the latter was that being a racial minority is very physically apparent while most LGBTQ+ individuals can hide their identity, if need be. Possible explanations for why this did not end up being the case could include the fact that some LGBTQ+ individuals have very sparse support networks and thus may lack social support. Additionally, the much larger amount of research on race relations in healthcare may have led to more and better training on racial sensitivity for providers while the same cannot be said for LGBTQ+ training. In regard to Hypothesis 3, one would think that stacking identities that each come laden with certain oppressions and biases in society would further increase the struggles one has in accessing healthcare. However, there is little statistically significant data supporting this hypothesis and the reason may be that double minorities may be aware of their precarious position in society and thus specifically seek out physicians with the same identities in order to eliminate possible bias and discrimination. Additionally, these individuals with intersecting identities may choose to hide their LGBTQ+ status and only present as a racial minority to their providers, which as stated above, is not as likely to be prejudiced against.

The data shows that there is a greater likelihood for there to be a significant difference between LGBTQ+ individuals and cisgender/heterosexual individuals than for there to be a significant difference between PoC and White individuals or between White cisgender/heterosexual individuals and PoC LGBTQ+ individuals. Identifying as LGBTQ+ seems to be the biggest indicator of the quality of care that one will receive in a healthcare

setting. LGBTQ+ participants also reported the highest rate of concerning health conditions, possibly due to both stigma and a lack of social support systems that racial minorities enjoy which help combat the negative effects of stigma and biases.

The results of this study were not exactly as expected and although that may be the reality, several methodological reasons that may account for this. To begin, the sample size is relatively small and isolated to a specific group, namely that of students at the University of Central Florida and a few other individuals associated with the university. The majority of the participants fell into the 18-20 year old age range, meaning that many of the participants are still under the care of their parents and may be more sheltered. However, it does not necessarily mean that they have come out, or revealed their sexuality, to their parents, should they be LGBTQ+, which may contribute to the higher discomfort among LGBTQ+ individuals as compared to racial minorities. Additionally, the city of Orlando is relatively diverse and accepting, possibly contributing to better healthcare experiences than individuals in other regions may experience.

It is also possible that participants are not keenly observant during their interactions with healthcare professionals and so are unable to voice exactly the root of their discomfort. For example, one participant reported being satisfied with their physician and experiencing few barriers to accessing healthcare other than cost, but their responses on the Likert scale do not reflect the same sentiments while another responded positively to the Likert scale but had recommendations for improving their healthcare experience. Implicitly biased procedures and techniques may be hard for participants to spot and label, especially if a participant has dealt with such interactions their whole life as racial minorities often do. This can lead participants to dismiss a colder reception by physicians, lack of lab testing, or even casual stereotypes. It may

be difficult for a participant to pinpoint why they feel discomfort or an unwillingness to see a physician and they may not be familiar enough with proper healthcare procedures to realize that their own experience is lacking. A lack of self-awareness can cause these detriments to not register with an individual despite the very real effect it can have on a person's health.

A comparison between the results on the Likert scale and the coded free responses shows a disconnect between perceptions of healthcare. The Likert scale is an arguably more explicit way of testing a participant's perception of bias while the free responses may or may not directly report bias and discrimination which makes the comparison between the two very interesting. In the results associated with the Likert scale, only LGBTQ+ respondents reported a significant dissatisfaction with their healthcare. But looking closer at the free responses, we see that racial minorities and individuals who experience the intersection between being a racial minority and LGBTQ+ also have issues with their healthcare experience. For example, racial minorities desire a comfortable experience and they have much more changes they wish to see in healthcare than other groups while those who are double minorities are the least likely of the four groups to seek healthcare. This indicates that LGBTQ+ individuals may be more self-aware and conscious of how their identity affects other's perceptions and treatment of them as being LGBTQ+ is something that an individual has to actively discover and come to terms with on their own. It also does not mean that racial minorities do not experience a reduced quality of care, they are just not as actively aware of it. Their complaints may be more internalized due to the desire to assimilate, lack of cultural awareness, or over-familiarity with worse treatment in their day-to-day lives.

Future extensions or iterations of this study should focus on reaching a larger sample size, in terms of age, race, gender, sexuality, and location in order to gain a more thorough

understanding of how the general healthcare experience differs for individuals based on their identities. There are also other ways to explore the healthcare experience, other than through the terms that this study attempted to focus on, to gain a more comprehensive view, such as specifically asking about the ease of finding a physician, the medications and treatments prescribed, or the willingness of the doctor to explore more options that are amenable to the patient. Ideally, the contents of this study could be used to create a parallel study that tracks physician actions in order to gain an understanding of the other side of the experience. Unlike previous studies that focus specifically on a certain specialty or a singular minority group (i.e. African-Americans), it could be less structured, as this study is, and instead gather how doctors respond to and treat patients of the different demographical groups and thus analyzes the likelihood of biased actions as well as how these actions manifest. Another important factor to examine would be the role of language barriers in communicating with one's physician and whether or not the inability to speak the same language as the provider affects the likelihood of biased interactions. Most of the participants in this study reported being very fluent or native in English but that is not always the case and so studying whether those who cannot effectively communicate would be an interesting study. In addition, understanding the type of provider that one goes to can also do a lot in terms of better understanding patient-provider relations as well as how individuals choose to receive their care. For example, although some participants volunteered the information on the free-response, it is generally unclear whether the participants' providers conformed to their identity in terms of race, gender, and sexuality, which can definitely affect the likelihood of biased interactions. Also determining if an individual has a regular doctor with which they have established a relationship with or if the individual utilizes quick care

clinics more would also help to better understand the nature of an individual's patient-provider relationships.

CONCLUSION

The findings show that an individual's healthcare experience is influenced by an amalgamation of each aspect of their identity and that to study any aspect individually would be reductionistic and ignoring key components of how an individual is treated. An intersectional approach is the only way to ensure a holistic view of a patient's experiences. Although many of the results did not show statistically significant findings for the intersection between being a racial minority and LGBTQ+, evaluating both aspects of an individual's identity helped to identify how these factors work together and help indicate if a particular dimension of the healthcare experience was more influenced by one identity or another or by the intersection of identities.

Being either LGBTQ+ or a racial minority, or both reduces one's perceived quality of care in ways that are often subtle and yet no less harmful. Physicians need to not only actively try to equalize their treatment of all patients but make the effort to reassure patients who are often more anxious about their care due to their position in society and require more understanding than what may have been taught in medical schools. Physicians cannot allow their diagnoses and treatment to be affected by their biases but also recognize that there are differences in the ways that some patients must be treated. Additionally, it must be noted that physicians are not the only people that one comes in contact with when pursuing healthcare and

so it must be recognized that medical assistants, nurses, and front office staff can also contribute to an uncomfortable or hostile environment and thus must also be trained to recognize and dispel their biases and discriminatory practices. Lastly, LGBTQ+ individuals experience a noticeably lower quality of care and given the rise in the discussion, activism, and knowledge around LGBTQ+ issues and individuals in society, physicians must make the effort to utilize these resources to eliminate such a disparity.

APPENDIX A: IRB APPROVAL



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board

FWA00000351
IRB00001138, IRB00012110
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

September 29, 2020

Dear Valerie Sims:

On 9/29/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study
Title:	Implicit Bias in Healthcare and its Implications on the Diagnoses and Quality of Care in LGBTQ+ and Racial Minority Patients
Investigator:	Valerie Sims
IRB ID:	STUDY00002198
Funding:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • Focus group_ Experiences of minority in healthcare.pdf, Category: Recruitment Materials; • IRB Sims 1214 recruitment email (1) (2) (1).docx, Category: Recruitment Materials; • IRB Sims 2198 HRP-254-FORM Explanation of Research.pdf, Category: Consent Form; • IRB Sims 2198 HRP-255-FORM - Request for Exemption 09252020.docx, Category: IRB Protocol; • Survey Questions, Category: Survey / Questionnaire;

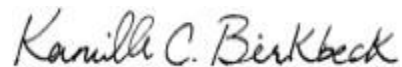
This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

Due to current COVID-19 restrictions, in-person research is not permitted to begin unless you are able to follow the COVID-19 Human Subject Research (HSR) Standard Safety Plan with permission from your Dean of Research or submitted your Study-Specific Safety Plan and received IRB

Page 1 of 2 and EH&S approval. Be sure to monitor correspondence from the Office of Research, as they will communicate when restrictions are lifted, and all in person research can resume.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

A handwritten signature in cursive script that reads "Kamille C. Birkbeck".

Kamille Birkbeck

Designated Reviewer

APPENDIX B: DEMOGRAPHIC SURVEY

What is your age? (number only)

What is your biological (assigned at birth) sex?

Male Female Intersex

What is your preferred gender identity?

Male

Female

Nonbinary

Genderfluid

Other

Do you identify as a member of the LGBTQ+ community, if so what label fits you best?

No, I am heterosexual and cisgender

Yes, I identify as a lesbian

Yes I identify as a homosexual male

Yes I identify as bisexual

Yes, I identify as transgender

Yes, but I identify as another label

What ethnic minority do you belong to?

Asian (specify if you wish)

Hispanic/Latino (specify if you wish)

American Indian or Alaskan Native (specify if you wish)

Native Hawaiian or Pacific Islander (specify if you wish)

Black or African American (specify if you wish)

Middle Eastern (specify if you wish)

More than one dominant race/biracial (please specify)

None, I am Caucasian

Are you an immigrant?

Yes I am

No, but one or both of my parents are

No, neither I nor my parents are

What is your comfort level with English?

Very fluent/native language

Rather fluent

Passably fluent

Conversationally fluent

Not very

Do you have health insurance?

Yes

No

I don't know

How often do you see a doctor?

2+ times a year (or as recommended)

Once a year

Once every two years

Only when absolutely necessary

Essentially never

If you answered "only when absolutely necessary" or "essentially never", please explain why. (cost, inconvenience, fear of prejudice etc.)

Do you have any concerning health conditions, if so which?

No

Chronic Illness (ex. cancer, Alzheimer's, asthma, cystic fibrosis, diabetes, HIV/AIDS, MS, etc)

Mental or Mood Disorders (ex: depression, anxiety, bipolar etc)

Physical Disabilities (ex: very poor vision, muscle weakness, amputated limb, paralysis etc)

Other

APPENDIX C: HEALTHCARE QUESTIONNAIRE

What is your general experience with healthcare?

Good, I feel like healthcare professionals take good care of me

Nothing special, just routine, nothing particularly memorable

I feel uncomfortable and/or worry about the quality of care I will receive

Have you ever felt too scared/frightened/threatened to seek healthcare?

Yes (briefly explain why)

No

Free Response Questions

1. If applicable, describe a time that you felt discriminated against by a healthcare professional based on your race (enter N/A if not applicable)
2. If applicable, describe a time you felt discriminated against by a healthcare professional due to being LGBTQ+ (enter N/A if not applicable)
3. What are barriers you experience in accessing healthcare? (including but not limited to: cost, lack of insurance, distance, communication barriers, distrust of doctors etc.) (enter N/A if not applicable)
4. What are concerns you feel a healthcare professional has dismissed or overlooked? (enter N/A if not applicable)
5. What are changes you think should be made to improve your healthcare experience? If nothing, please say what it is you like about your current healthcare experience.

APPENDIX D: LIKERT SCALE

	Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
I feel comfortable going to the doctor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel my doctor is respectful towards me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like my doctor discriminates against me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think my doctor listens carefully and thoughtfully to my concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am worried the doctor will not take me seriously	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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